

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



OCTOBER, 1880.

IN THE LAST NUMBER we endeavored to show that both pleasure and instruction are within the reach of all, that time and money in large quantities are not essential to either. The world is full of interest, loaded with beauty, and no dweller in the country can walk with open eyes through field or meadow or wood without finding in bird and tree and leaf and flower, in sunshine and shadow, beauty more exquisite than grace the palaces of emperors, or adorn the art galleries of the world. Some, we fear, are strangely blind to all these glories, longing for views of great things that they will never realize and could not appreciate. A lady reader, referring, in a gossip letter, to some remarks in a previous number, says:—"A few years ago I knew really nothing about flowers—only admired their beauty. Now I know them; they are my friends. I know something of the history and merits of each, and introduce them to my visitors. They are my companions, and we hold pleasant converse."

A party were examining CHURCH'S great painting of the Yosemite Valley, when a gentleman remarked that he had seen in the valley nothing like it. "That is undoubtedly true," remarked one of the company; "you did not have CHURCH'S eyes." Genius, said RUSKIN, is the superior power of seeing. Too many pass through the world surrounded with glories that

would enrapture a poet, an artist or an angel, and see no beauty, hear no sweet sounds. For them the birds sing not, nor do the flowers bloom. They hear not the sweet notes of the birds—even the Nightingale sings in vain; the Lilies, though more glorious than Solomon, are unheeded because they neither toil nor spin nor gather into barns.

In our library we have a work of a thousand pages, written by an English physician, describing the plants and flowers and birds and insects inhabiting his little garden of two or three acres. This was a work of love and a pleasant recreation. The author had eyes to see and a heart to feel. The garden was a part of his life, and he could talk and write about it as he could talk and write of a friend.

We remember no American book of exactly this character, but "Rural Hours," by Miss COOPER, is quite as enjoyable, and in Europe a gentleman informed us that no work had given him such an insight into the pleasures and beauties of American rural life as this work of the daughter of our great novelist, J. FENNIMORE COOPER, from which we make a few extracts. The author saw beauty in our changing seasons.

THE APPROACH OF SPRING.

"A thunder shower last night, by way of keeping the equinox, and this morning, to the joy of the whole community, the arrival of the

Robins is proclaimed. It is one of the great events of the year with us, is the return of the Robins; we have been on the watch for them these ten days, as they generally come between the fifteenth and twenty-first of the month, and now most persons you meet, old and young, great and small, have something to say about them. No sooner is one of these first-comers seen by some member of a family, than the fact is proclaimed through the house; children run in to tell their parents, 'The Robins have come!' Grandfathers and grandmothers put on their spectacles and step to the windows to look at the Robins; and you hear neighbors gravely inquiring of each other: 'Have you

fifteen at work in his garden, hoeing his dozen Corn hills, and weeding his Cucumber vines. One always loves a garden; labor wears its pleasantest aspect there. From the first days of spring, to latest autumn, we move about among growing plants, gay flowers, and cheerful fruits; and there is some pretty change to note by the light of every sun. Even the narrowest cottage patch looks pleasantly to those who come and go along the highway; it is well to stop now and then when walking, and look over the paling of such little gardens, and note what is going on there.

"Potatoes, Cabbages and Onions are grown here by every family as first requisites. Indian



seen the Robins?' 'Have you heard the Robins?' There is no other bird whose return is so generally noticed, and for several days their movements are watched with no little interest, as they run about the ground, or perch on the leafless trees. It was last night just as the shutters were closed that they were heard about the doors, and we ran out to listen to their first greeting, but it was too dark to see them. This morning, however, they were found in their native Apple trees, and a hearty welcome we gave the honest creatures."

A VILLAGE SKETCH IN JUNE.

"Thermometer 92°. Happily, there have been pleasant western breezes through these warm days. Strolled about the village in the evening; saw an old neighbor of threescore and

Corn and Cucumbers are also thought indispensable, for Americans of all classes eat as much maize as their Indian predecessors. And as for Cucumbers, they are required at every meal of which a thorough-going Yankee partakes, either as salad in summer, or pickled in winter."

"Flowers are seldom forgotten in the cottage garden; the widest walk is lined with them, and there are others beneath the low windows of the house. You have Rose-bushes, Sun-flowers, and Hollyhocks, as a matter of course; generally a cluster of Pinks, Bachelor's Buttons, also, and a Sweet Pea, which is a great favorite; plenty of Marigolds, a few Poppies, large purple China Asters, and a tuft of the lilac Phlox. Such are the blossoms to be seen before most doors; and each is pretty in its own time and place; one has a long-standing regard

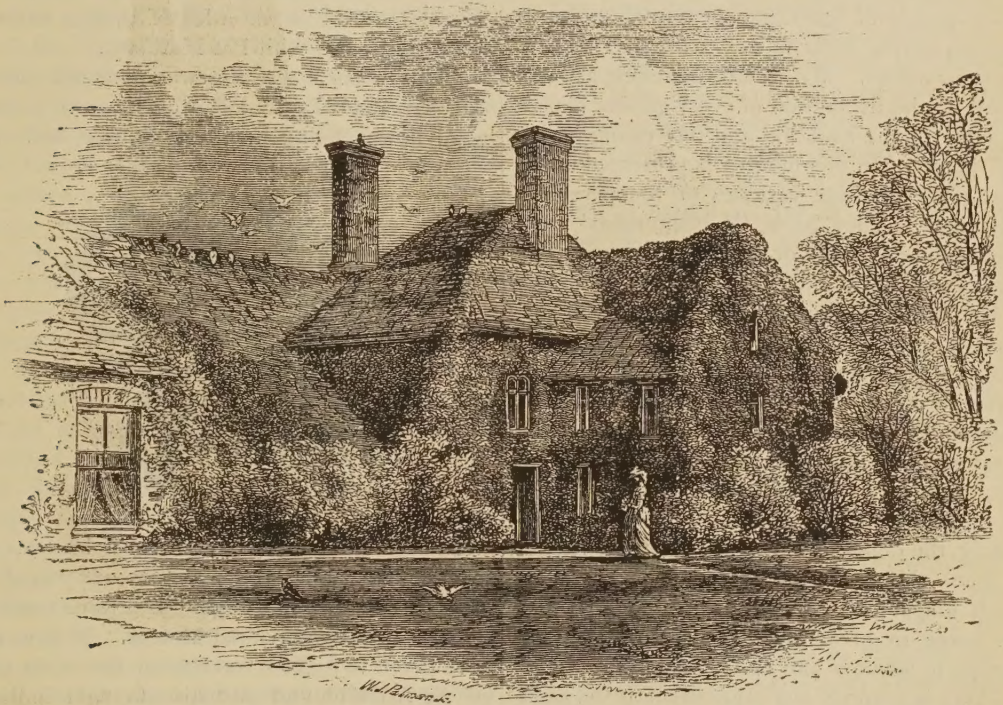
for them all, including the homely Sun-flower, which we should be sorry to miss from its old haunts."

THE AMERICAN AUTUMN.

"The woods are fine, under the cloudy sky. Scarlet, crimson, pink, and dark red increasing rapidly—gaining upon the yellows. So much the better; seasons where yellow prevails are far from being our finest autumns. The more crimson and scarlet we have to blend with the orange and straw colors, the gayer we are. Still, this seems rather a yellow year; for the Elms and Hickories—which often wither and turn brown, without much beauty—are very handsome just now, in clear shades of yellow, fluttering in the breeze like gold-leaf; while the Chestnuts, Birches, Witch-hazel, and many

Chestnut, and Tyrian purple upon the Oak; while the neighboring Grape-vine hangs a dull and blighted garland of russet upon the forgotten Aspen, still green. Spring has a dainty hand, a delicate pencil; no single tree, shrub, plant, or weed, is left untouched by her; but autumn delights rather in the breadth and grandeur of her labors, she is careless of details. Spring works lovingly—autumn, proudly, magnificently."

Every year some of our readers cross the Atlantic, and as summer approaches we have requests to forward the July or August numbers, or both, to leading cities of Europe. It is too late to give advice that will be of benefit this season, but we hope another year all who enjoy the pleasure and endure the toil of an Euro-



Maples, as usual, wear the same colors. Although there are certain general rules regarding the coloring of the trees, still they vary with different seasons; some which were red last year may be yellow this autumn, and others which were dull russet may be bright gold color.

"Some of the Oaks are turning deep red, others scarlet. The Ashes are already dark purple. But while most of the foliage is gaining in brilliancy, bare limbs are already seen here and there; the Virginia Creepers are all but leafless, so are the Black Walnuts; and the Balm of Gilead Poplar is losing its large leaves. Such is autumn: prodigal in her magnificence, scattering largesse with a liberal hand, she is yet careless and regardless of finish in the lesser details; she flings cloth of gold over the old

pean tour will leave for a while the wonders of the world, and see a little of its quiet beauty—to be found nowhere so perfectly as among the rural scenes, the Hawthorn hedges and Daisy meadows, the Cowslips and Primroses, the quaint Ivy-covered cottages and delightful little country inns of the counties of Devonshire and Hampshire, England.

In the eastern part of the latter county, in a little hamlet known as Selborne, about a hundred years since, lived a Parish Rector, GILBERT WHITE, who was not only interested in the temporal and spiritual welfare of his people, but also in the birds and insects and flowers of his neighborhood. In 1788 he published a charming book called the "Natural History of Selborne." Few books have been so universally read as this, or honored with so many

editions. One recently published in London contains views of the residence of the author, now the property of the eminent naturalist, Professor BELL. It is such a charming old house, so like many old English places, and so unlike most of the homes of America, that we give these views, thinking they may please and perhaps benefit our readers.

PERENNIAL LARKSPUR.

The wealth of beauty presented by the hardy perennials is inexhaustible, and we can only pity those who are content to confine their attention to a few beds of tender plants, however bright and gay they may be while in their best condition. Early in spring, all through the summer, and late into the autumn, some of the many species of handsome perennials are constantly pushing their flower-stems and spreading their colors. We would, therefore, ask that a part of the decoration of every garden consist of some of the beautiful and interesting perennial plants. In this number is presented a colored plate of three varieties of the perennial Larkspurs. They have all been raised from one or more Chinese or Siberian species. The variety at the left, with the white eye, is known as *Delphinium formosum*, and has been in cultivation quite a number of years. The other two sorts are from a comparatively late Chinese importation, and now known in the trade as Chinese Delphiniums. We have no hesitation in saying that the plate, although an excellent one, does not do justice to the original, nor do we think it possible to imitate, except approximately, the depth and brilliancy of these shades of blue. Many of the spikes of flowers are much longer than those represented, and they are borne in great profusion for nearly three months in summer and early autumn.

There is scarcely any other plant at the same season to furnish the colors afforded by these Larkspurs, and the flowers prove of great service to the florist. The plants are of the easiest culture, and only require to be placed in good garden soil, in the fall or spring, and to be kept free of weeds. Seeds sown in spring will produce plants that will bloom the next season. A plant left undisturbed in the garden for a number of years increases in size and becomes a large clump or mass, producing an immense amount of bloom. When the plants have become large, it will be an advantage to give a dressing of old manure in the fall to keep up the size of the blooms.

In a few words, we can say of these Larkspurs, that they give complete satisfaction, having no faults and no difficulties of cultivation.

THE CALENDULA.

Every one must know the old yellow Marigold, for it is common as the Sunflower, and has been as long as we can remember. It is called in the books *Calendula*, but that makes no difference, for it is the same old Marigold that many of us have grown for half a century. That name was given because it was thought some species were in flower every month of the calendar. The Marigold is a corruption of Mary's Gold, because it was once a highly prized pot herb, and considered invaluable to English cottagers' wives. It was also thought to possess remarkable medical virtues, to which belief some still adhere. In fact, there are some benighted people in the old countries, and a few have strayed over to this land, who would not like to eat a leg of mutton without a sauce flavored with Pot Marigold.

Some years since a new variety was introduced, called *Le Proust*, that proved a very good flower, being uniformly double, and of a



CALENDULA METEOR.

delicate nankeen color, edged with brown. A year since, among the novelties advertised in Europe was a new Marigold said to be remarkably beautiful and named *Meteor*. It does not take much to make a novelty on the other side of the Atlantic, and perhaps our friends there could return the compliment, so we did not expect anything surprising. Our interest, however, was somewhat aroused on receiving dried flowers from Europe, which were really pretty. This summer we have a bed that has proved quite satisfactory. The center of each petal is of a creamy yellow, bordered with orange, and every flower on the plant is quite double, with no bad center. We have endeavored to show the size and appearance of this flower by an engraving, but it is hardly possible to do so without a colored plate. The *Calendula* will probably never take rank with our best annuals, but we are glad to see it make a bold start for the front after so long a stay in the rear. If its improvement should continue there is no telling the future of this good old flower.



THE LITTLE PREACHERS

MR. VICK :—Some years since, having fallen into ill-health, I sojourned for a few weeks in a southern city that I might be under the treatment of a celebrated physician. By his advice I took a daily walk of two miles or more, unless the weather was extremely unpleasant. Being not over fond of city life, I always extended my walks in the direction leading out into the open country, where the air was pure and the scenery picturesque. Nearly every day I passed a little cottage just outside the city, which was set back a little from the road, and in front of it was a pretty flower-yard kept in the neatest order. There were not many rare flowers, the most of them being old-fashioned. There were Pinks and Honeysuckles and Roses of many kinds. There were small beds of Violets, Heart's-ease, Mignonette, and a few of the common white garden Lilies. Around one bed was the prettiest edging I ever saw, of the bulbous rooted plant that bears a flower called the Star of Bethlehem. I never saw any one working in this little garden, save an elderly lady, whose hair was almost silvery white, though her cheeks looked rosy, almost as a girl's. Sometimes I would see her training up a vine; sometimes with her shears gathering flowers, and then placing them carefully in a basket; sometimes she would be using a light garden hoe or rake, with strength and skill. She never seemed to notice passers-by, so intent was she upon her occupation, and I became so used to seeing her in the pretty yard every morning that her face was quite a familiar sight to me. She always looked cheerful, and several times I heard her humming a hymn-tune as she busied herself with her plants.

One morning I had prolonged my walk further than usual, and had just turned back towards the city when I discovered, to my dismay, that a very dark and angry-looking cloud was rising. I quickened my steps, but before I reached the city large drops were falling, and, having no greater protection than a parasol, I decided on stopping at the nearest house and

asking for shelter. The next house proved to be the pretty cottage I had so often noticed, and through the gate I hastened and ran up the broad walk to the vine-wreathed porch. Just then the familiar face of the old lady appeared at the front door, and a kind voice invited me to come in and rest. I gladly accepted the invitation, for I was much fatigued, and followed my old lady into a neat sitting-room. Then, seated in a most comfortable rocking-chair, I rested a short time, and became at the same time well acquainted with my hostess. She introduced herself as Mrs. WILSON, and I soon learned that she was a widow who had but one child, a son, whose business called him to the city early in the morning. There he remained until night.

"But are you not lonely?" said I. "It appears to me your days must seem very long."

"Oh, no!" said she with a smile. "I am happy with my garden and my little household duties, and am busy, too. The days sometimes seem so short that I am surprised when I find that the sun is nearly down. You see, every morning I go out into my flower-yard and see what may need my attention. There is always something to do there. And, while I am at work, the fresh air seems to brighten me up, and if I feel a little bit lonely, I find company in the flowers. Oh! I cannot tell you how much good my flowers do me. But will you not come out and look at them? The cloud has gone and the sun has come out."

Willingly I followed the kind old lady into the fresh air. The shower had been but a light one after all, and the Roses and Pinks looked brighter than ever. The old lady stopped in the walk, and extended her arms, saying,—

"These are my little preachers. They preach me many a sermon. Long ago I heard a minister say, in the pulpit, that all our daily occupations we might turn to the glory of God. 'Even,' said he, 'our sisters here, some of whom delight to cultivate flowering plants, may use their minds while at their work in such a way that it may be a benefit to them spiritually.

Should they, in weeding their plants, consider the faults and infirmities they themselves are conscious of having, as being weeds, tending to choke and hinder the growth of the soul, it may be to them the means of improvement.' Well, the idea struck me as a good one, and since, when I have been working in my little yard, I think I have learned many profitable lessons."

"Now, this little bed of Mignonette, humble and homely as it looks, can do something to please. Almost everybody loves its perfume. So I think a poor homely body like myself should try to do something in the world to give others pleasure. And these sweet Violets, too, hiding in the shade, say to me, 'Be humble, be humble.'"

"And what lesson does the Lily teach you?" said I.

"Oh," said the old lady, "I never look at these pure white Lilies without longing for the time to come when my soul will be without a stain of sin, without spot or blemish."

"And these evergreens," said she, "speak to me of the enduring mercy of our Heavenly Father—unchanging, undying."

Just then we came to the edging I mentioned before. Pointing to the numerous star-shaped blossoms, she said, "I often stand and gaze upon them, and my mind is filled with thoughts of thankfulness and love to our kind Father for His great mercy and love shown to us in the gift of that dear Son, our blessed Savior. And I think of His life from the time the star was seen by the wise men until He gave it up for our sins; and they preach me as powerful a sermon as any I have ever heard from the pulpit."

Just then the striking of the city clock warned me that I could stay no longer, and I unwillingly said good-bye to my good old friend. Being unexpectedly recalled home the next day, it has never since been my good fortune to meet with the dear old lady; but her pleasant, cheerful face, and her kind voice repeating the lessons learned from the flowers will long dwell in my memory.—E. B. H., *White Plains, Ga.*

CHEERING EFFECT OF FLOWERS.

Nature often speaks words of consolation to the sad and weary-hearted. As the sweet strains of David had a soothing effect upon Saul when overcome by the evil spirit, so the beauty of the sunset sky, the rippling of the brooklet, or the sighing of the wind among the tree-tops, will oft-times calm the troubled and perturbed mind, and induce feelings even of happiness and delight.

The cultivation of flowers by persons who are inclined to be what is termed "low-spirited,"

is to be recommended. Noticing the peculiarities of different plants, and striving to understand the treatment necessary to bring them to the greatest degree of perfection, will, of course, keep the mind from dwelling upon itself, and that is a great step towards a healthy mental condition. Even looking at the bright blossoms tends to produce thoughts of a lively nature.

I know a lady who is one of the most cheerful persons I ever saw, although she is almost entirely deaf. She has quite a large collection of greenhouse plants, which always look luxuriant and vigorous. Years ago, before she gave the cultivation of plants so much attention, she had to undergo great affliction in the loss of her husband. She became very melancholy, and her daughters became distressed at her condition. She seemed to take no interest in anything that surrounded her, but all the time brooded over her great loss. At last one of her daughters said to her, "Come, mother, and take a look at your poor flowers. I know you will feel sorry for the poor things; they have been so neglected." Acceding to the request, she went into the little conservatory, and, as the withering, forlorn plants met her gaze, she did indeed feel sorry for them and began plucking the yellow, useless leaves that hung on each. From that time she occupied herself in working with them that they might again look flourishing and vigorous; and soothing and comforting to her were the hours thus employed. Soon a healthy frame of mind was restored, and ever since has the companionship of her loved plants been to her a source of comfort and delight.

A few weeks since a dear young girl lived near us who was very fond of flowers. She had a few plants, but desired to get some that were more choice. She came to me to advise her in selection, and together we made out a list which she requested me to order for her. This I took pleasure in doing, though from her appearance I feared she would not live long to enjoy them. In the interval between ordering and receiving the plants, her strength failed rapidly, and when they arrived it was evident that she had not many days to live. In her sickness, however, the possession of the flowers was to her a great pleasure, and she thought of and noticed them until the last day of her life.

Since the young girl's death, an aunt, who never before cared for flowers, has lovingly tended the plants, and they are now thrifty and beautiful. No doubt the moments employed in their culture have been cheering to her loneliness, speaking words of consolation and opening a new source of pleasure.—H.

AMONG MY FLOWERS.

August is the month of fullness of blossom, and no month is so well adapted to the taking account of stock, with reference to a future year. What novelties have proved satisfactory? Has the arrangement of plants been such as to give the best effect?

Wherein there has been a mistake, it can be remedied next time. A tall, branching plant looks very much out of place in the midst of low-growing ones. We do not always know, when we put out a plant with which we are unacquainted, what will be the character of its growth, but, usually, if we give proper heed to our descriptive catalogues, we can be guided aright.

In the spring I received, with various other plants, two *Salvias*. One was labelled *S. rosea*, the other *S. Hoveyii*. I did not look up the description, and bedded them together where there were Tea Roses and other low plants. *S. rosea* did not grow any taller than an *Abutilon pictum* and *Happy Thought Geranium* close by it, but *S. Hoveyii* towered up and branched out a very Saul among the other plants. I was so vexed about it, I had half a mind to pull it up by the roots. It has just spoiled the effect of the bed to my eye. Had I read the following from my catalogue I would never have been so unwise: "*S. Hoveyii*, new. It is a brilliant blue-flowered variety, so long desired, of the same growth, habit and appearance as the old and well-known *S. splendens*, from which it is a sport." Now, I knew all about that tall, vigorous *S. splendens*, and would never have put that in such a position.

I raised some seedlings of two sorts of *Asters*, new to me. "Newest Shakespeare, a new dwarf *Aster* of wondrous beauty. The plants form a compact bush of ten or twelve inches in diameter, and six inches high. Diamond *Asters*; a novelty of the highest merit, especially recommended by the floral committee of the London Horticultural Society last autumn. Plants eighteen inches high, with very large flowers of the greatest perfection; constant in habit and color." Had I not been posted in this case, I might have bedded out my seedlings just the reverse of what they ought to be. As it was, the tall ones were in the background, and the bushy dwarfs nestle at their feet. The effect is very pretty.

It requires a cultured taste to arrange flowers properly in the beds. It will not do to have all dark flowers grouped together, and all bright ones separately, but have the one so massed as to set off the other to the best advantage.

The most brilliant bed in my garden, though not the most fragrant, is filled with every shade

of color that a *Geranium* can display, from White Clipper to Le Negre—scarlet, crimson, pink, magenta, carmine, salmon, yellow, orange, vermillion; white eyes, pink eyes, purple eyes with tints of orange; rosy-lake, suffused with violet; scarlet, striped, splashed, spattered with white; salmon, striped with white; silver-leaved, golden, bronze, and tri-color; zonale, Liliputian, Grant, Nosegay; single and double.

For constant blooming, from June until frost, give me a *Geranium* bed of divers sorts and colors! The plants will grow in almost any soil, endure the drought wonderfully, bear any amount of ill treatment, and never grumble if crowded into a dry goods box with a shovelful of dirt, and put into a dark corner of the cellar, and let severely alone until spring. If the stalks die down, the roots will live, and when brought into the light and watered will spring forth into new vigor and yield ungrudgingly an abundant harvest of blossoms.

This is a vexed question. Which of the rival claimants is the nearest approach to a yellow? I read in the catalogues: "Guinea, brilliant orange-yellow; the nearest approach to a yellow Zonale yet sent out." "La Constitution; this beautiful variety has flowers of a glowing, yellowish salmon; the nearest approach to yellow of any." De Gasx (single) and Casimer Perrier (double) are good types of orange-yellow. La Constitution I have never seen, but the others adorn my bed, and I ask all visitors to tell me which of them is "the nearest approach to a yellow." Some say, "This one," pointing to De Gasx; others say, "That one," pointing to Guinea. This last is a brighter tint than the former. De Gasx is more unique in color, the pip is much larger, and whether "the nearest approach to a yellow" or not, I think it the most desirable. But that is wholly a matter of taste.

I have had several plants before unknown to me, that I am very much pleased with. They were sent from Washington.

Ixora amabilis is very attractive both in leaf and flower. It had a large truss of deep orange-salmon, tube-shaped blossoms when it came to me in June. It now has a cluster of well-developed buds. The leaf is thick, orange-like, shiny, with brown shading. It is a vigorous grower, of shrub form.

Panax laciniatus, from the South Sea Islands. The leaves are tinted, and marked with pale olive brown.

Anthurium Scherzerianum—One of the most striking and beautiful dwarf-flowering stove plants of recent introduction, producing brilliant scarlet flowers, each of which remain from

two to three months in bloom.. It is easy of culture and a most abundant bloomer.

Paulinia Thalictrifolia is a very beautiful plant of a slender, vine-like growth. Its foliage is very delicately cut, resembling a Maiden-hair Fern.

Taberæmontana Camassa is a shrub of a neat, dwarf habit, with glossy, bright, Laurel-like leaves. "Its double white flowers, which are produced on the point of every shoot, are of *Gardenia*-like outline and fragrance. Small plants in three-inch pots will produce flowers freely." My tiny plant has buds, and I watch their growth with interest.

I wish I could describe the peculiar beauty of *Cyanophyllum spectandum*. The catalogue fails to convey an idea of its rare beauty of leafage, so like velvet, yet glossy as silk, large, and ribbed with a whitish color.

Acalypha Macafeena is very unique, with leaves nearly as broad as they are long. They are red, blotched with bronzy crimson.

These novel plants to me form a very interesting part of my collection. They are not costly. And why not sometimes take a departure into the new and untried portions of the floral kingdom? I would like to tell you of other new and attractive plants, but at another time.—MRS. M. D. W., *Yarmouth, Me.*

COBCEA SCANDENS.

I do not agree with Mr. WILLIAMS, as noticed in my former article, in his recommendation of the *Cobœa* as a useful plant for a hanging basket, and I would not advise any one to use it for that purpose. In my opinion it is too coarse and rank a growing plant to be used for such a purpose. So grown it certainly would not flower; besides, we have many other varieties of plants that are in all respects more suitable for such purposes than the *Cobœa*, as, for instance, the *Maurandya*, *Physianthus*, *Lophospermum*, and many others.

And I advise all who adopt the plan of plunging the plant in the pot in the open air during the summer, either to shift into a pot two sizes larger, or else to take it out of the pot and reduce the ball of earth nearly one-half, and repot it in fresh compost before removing it into the house. This should be done not later than September 10th. The plants will amply repay this little attention by an increased luxuriance of both foliage and flowers during the winter months, while plants not so treated will often become sickly and unhealthy before spring, and besides, when pot-bound, they soon become the prey of numerous insects.

With the exceptions above noted, I fully concur with Mr. WILLIAMS in his remarks relative

to the value of the *Cobœa*, and I quoted them because he possesses a pen capable of describing the use of the *Cobœa* more elegantly and truthfully than I could possibly do.

Cobœa scandens alba is a variety of *C. scandens* with greenish white flowers, generally reproducing itself from seed. It requires the same treatment, and is propagated in the same manner as the old variety.

C. scandens variegata.—This is a variegated variety of *C. scandens*, and one of the most magnificent ornamental climbers, the leaves being broadly margined with yellowish-white, the variegated foliage forming a beautiful contrast with its large, purple, bell-shaped flowers. It is of vigorous, rapid growth, is perfectly healthy, and can be easily trained to a length of over fifty feet in a short time. It is one of the finest of ornamental plants, the variegation being not only distinct, but every leaf is broadly and distinctly marked with yellowish-white. It is also excellent for out-door work, as it is as hardy and as rapid in growth as the plain-leaved variety, and hot weather does not injure its foliage in the least.

Unfortunately, it is rather difficult of propagation. Cuttings root only with great difficulty, and layers furnish the best mode of increase. In layering, cut out a notch near a joint, place in a pot and fill with soil; keep the soil in the pot moist; take up when well rooted. The layers will sometimes root in two weeks, and at other times they require two months. Seeds are ripened and vegetate freely, but the plants die off soon after attaining their seed leaves. After repeated trials, I have not been able to raise a single plant of this variety from seed.

C. scandens argentea is another variegated-leaved variety, differing from *C. scandens variegata* in the variegation of its leaves being of a purer white. It is described by some as being identical with *C. scandens Schuerens Seedling*, but Messrs. LEEDS & Co., of Richmond, Indiana, in their catalogue, describe this as "being a great improvement on the old variegated variety, growing as vigorously as the plain-leaved variety. Leaves large, green, bordered with creamy white; calyx of the flowers variegated like the leaves; will be a standard sort." I will leave it to others to decide from experience whether the two latter varieties are identical or not, and can only say that I have found the old variegated variety, *C. scandens variegata*, to be as rapid, vigorous and as healthy in growth as the parent.

Whether grown in the greenhouse or in the open air, the *Cobœa* is perfectly free from all insects.—CHARLES E. PARNELL, *Queens, New York.*

THE WAR IN MY GARDEN.

I don't believe in fighting, but the slugs on the Rose bushes began it, and I retaliated, for I could not think of losing my Roses. The enemy appeared one morning before I was out, and made sad work with the leaves. I went to work to dislodge him. I dissolved a piece of whale-oil soap, as large as a hen's egg, in boiling water, and filled up the pail nearly full of water. When cool I took a whisk broom, and, bending over the bushes, gave them a good drenching on the under side. Next day I repeated the operation, to kill any stragglers that might have escaped the first time. After this I saw no more of the enemy.

Then something appeared in the seed bed—or, rather, did not appear—eating up my choicest plants as coolly as though they were common weeds. I suspected it was slugs. I made some Quassia-bark tea and sprinkled the bed, thinking if they would eat my choice seedlings they should have them as bitter as possible. They concluded to leave for a more congenial sphere, and my seedlings were troubled no more from them; but, alas! a new foe awaited them. After I transplanted them into the beds,

Worms to the right of them,
Worms to the left of them,
Worms in front of them, ate and grew fat;
Ate all the blossoms up,
Ate all the leaves up,
Ate all the root up; didn't even leave that.

The worst of the lot is the Cut-worm. He gets up early in the morning (I wish the early bird would catch him), cuts off the plant so neatly near the root, and drags it down into the earth to eat at his leisure. I have found one once in a while and given it to the chicks as a dainty morsel, and I have felt as though one more was disposed of where it could not trouble my plants any more; but, after all, it was small satisfaction, when I thought that my choice Stocks and Phlox had gone with it. At last I have circumvented him. It pleases me to think of it. One night I transplanted forty Ten Weeks Stocks, about two inches high. Next morning about one-third of them had disappeared. This was getting serious. I had previously lost some of my Asters and Balsams, but as I had not missed any lately, I concluded they had left for fresh fields and pastures new. It seems they were waiting for a tender salad. Should I stand idly by and let my Stocks be "chawed" up at this rate? I adopted the words of our famous General, "I'll fight it out on this line if it takes all summer." I went straight into the house, cut some paper bags into strips two inches wide, made a little furrow around each plant, enclosed it in a strip of the paper, lapping it and pressing the earth

against it. Each plant was thus enclosed in a little castle of its own, over which no worm could climb. As I said before, I circumvented him; for I saw him no more, nor did I lose another plant. To-day they are in their glory; great fragrant spikes of purple, white, and all the shades of pink and crimson.

Then the green Aphis suddenly appeared on the tender shoots of Roses and other plants. The Quassia-bark tea came to the front again, and they soon disappeared.

I heard that the Army worm had appeared in some of the gardens of the city, so was on the look-out for it. Sure enough, one morning, I found five that had been sent out as scouts. I did not stop to give them to the chicks, or leave one to return and tell the tale of defeat.

Time would fail me to tell of the worms, little and big, and bugs, black, yellow and gray, that I have had to fight, so I will say no more about them, but tell you of the flowers I have left in spite of them. There are my Chinese Pinks; such lovely shades of crimson, scarlet, mottled and splashed, double and single. Some of the laciniatus variety, single, deeply fringed, measure three inches in diameter; yes, good, honest measure. If you want something that will bloom from June until frost, and delight you every day, have some Pinks. There is my Drummond Phlox, one sheet of bloom. I want specially to speak of the new Carmine Queen, rightly named queen. It is a very large, round flower, of a beautiful shade of carmine, with a clear white eye. It makes the others look small. There are Pansies, Phacelia, Ageratum white and blue, Sweet Alyssum, Candytuft, Mignonette, Verbenas, Gladiolus, Geraniums, Fuchsias, Heliotropes, Feverfews, Abutilons, Tea Roses, Carnations, Petunias, Portulacas, Sweet Peas, Maurandya, Nasturtiums, and Morning Glories, besides all the perennials. So you see I have a few left. The old adage is, "Don't shout until you are out of the woods," but I think I shall venture to take a long breath and rest awhile from the fight.—M. J. P., *Lynn, Mass.*

BULBS AND MICE.—If any of your readers are troubled with injury to their bulbs by field mice during the winter, allow me to suggest what has proved with me a remedy. Formerly I covered my bulbs early in the autumn, before frost, and field mice being abundant in the neighborhood, they seemed as soon as cold weather approached to take shelter among my covering and feed on my bulbs. Now, I leave off the covering until the ground is frozen about an inch in depth, and I guess the mice get tired of waiting and go elsewhere.—J. B. C.



SWEET THOUGHTS.

"And so I hold the smallest flower
Some gracious thought may be;
Some message of the Father's love
Mayhap to you or me."

Blooming, blooming, everywhere,
In country and in town;
Blooming for the good and wise,
Looking out in rare surprise,
Laughing with a tender look,
Nodding from some cozy nook,
Dreaming by some idle brook,
Every flow'r an open book,
Every one a precious prize,
Smiling through the varied dyes—
Scarlet and gold and brown—
God's sweet thoughts of gracious care.

Blooming, blooming, everywhere,
Where quiet reigns, or strife;
Lifting faces fair as day,
Happy greeting on our way;
Blooming where the children play,
Blooming where fond lovers stray,
Blooming in the hush of night,
Trailing robes of crystal light
O'er the garden's green and gold;
Blooming for the young and old,
Blooming for the wasted hand,
Blooming free in all the land;
Fringing the world so noiselessly,
Lent to us most bountifully;
Frail blossoms full of life,
God's sweet thoughts of gracious care!

Blooming, blooming, everywhere,
In haunts of woe and sin;
Still, their mission they fulfill,
Born to do our Father's will—
Little tokens from above,
Little fragments of his love.
Who can tell what soul shall take
Some new courage for their sake,
Bearing midst the sun and show'rs,
Incense from these fragile flow'rs?
Thus, the blossoms' souls abide,
When the gates above swing wide,
And he bears with him, the while,
Mem'ry of the bright flow'rs' smile—
As pilgrim enters in—
God's sweet thoughts of gracious care.

MRS. CHARLOTTE E. FISHER.

AUTUMN BERRIES.

"Come, come into the wood,
Pierce into the bowers
Of these gentle flowers,
Which not in solitude
Dwell, but with each other keep society,
And with a simple piety
Are ready to be woven into garlands for our
good." —YOUL.

I have been gathering to-day (September 7) some of our Bitter-Sweet berries, *Celastrus scandens*. Now is a good time to gather them for winter decoration, for the pods open quite as well when plucked early and hung berries



CLIMBING BITTER-SWEET.

downward as when allowed to stay on the vine until the frost forces them apart. The berries will keep fresh and red all winter by occasionally laying them in fresh water for a few minutes to take the dust off and prevent the berries from shrivelling.

The fruit of the Indian Turnip, *Arisæma*, I find plentiful at this time. The root of this plant is very pungent, and the leaves are now withered, but the head or cluster of berries looks bright and gay.—A. B. S., *Canandaigua, New York*.

PASSIFLORA CÆRULEA.

The *Passiflora cœrulea* is a climber I take great delight in as a basket plant. I have one in a standard basket now, which has been growing for nearly four years without change of soil, and it is the admiration of all who see it. It needs no help in climbing, but twists and turns itself, by means of tendrils, from the base of the stand to the handle of the basket, most gracefully. The foliage is perfect, and the bloom is constant all summer. I keep it in a room just above freezing during the winter; the new growth of innumerable shoots is usually over a yard long before the plant is removed to the open air, when part of the old growth is cut away. It is easily propagated from slips.—MRS. J. W. B., *Collegeville, Pa.*

A PASSION VINE.

MR. VICK:—I was reading in the Midsummer Number of your MAGAZINE about *Passiflora cœrulea*. Now, I thought mine was *cœrulea*, but evidently it is not. The leaves of my *Passiflora* are large, glossy and three-lobed, and the flowers at least four and a half inches in diameter. They are purple, or rather the "crown of thorns" is purple, but the petals are only tinged, and the stamens and pistil light green.

If your correspondent calls his vine "magnificent," he should try my variety. I procured it from a neighboring florist, early in May. It was then about three feet high, and, of course, an old plant. I don't know how old. It commenced budding immediately, and has flowered continually ever since. We had our first blossom early in June. We set it at the northeast pillar of our piazza, in ordinary garden loam, and nothing has been done for it since, excepting to train it spirally around the pillar. It has nearly reached the top, and is at least ten feet long, with numerous branches. I have had blossoms open twice, or else not close for two days—I haven't watched closely enough to tell which—once during our "cold wave," when the thermometer on the same piazza stood below 60°, and again last night, while we were having a cold northeast storm; so I think the low temperature has something to do with the two days' blossoming. The blossoms are quite fragrant, scenting the room quite perceptibly.

I have often wondered at this wonderful vine being so little cultivated, as one can have such good success at a small cost and little trouble. I have tried two summers with the same success. Mine is the only vine I have ever seen in this section, and has attracted a great deal of notice by its showy, singular flowers. I would advise your readers to try one.—MRS. A. C., *Leominster, Mass.*

The plant described above may be *P. incarnata*.

WILD FLOWERS.

To those who see God in nature, how beautiful and varied its aspect. It is not necessary to be a botanist to love a flower. We need not be geologists to revel in the everlasting hills. Not that we do not care to know all that may be known; on the contrary, it seems our duty to learn all we can of nature's wonders.

Nature deals sparingly in the most gorgeous tints. Few are the wild flowers in very gay attire among our native wild plants. They seem rather to delight in soft tints of blue and purple and gold, no two species presenting exactly the same shades. Men of science have tried to solve the mystery how each little flower gets its

loveliness, but we do not regret that they have tried in vain. Had they succeeded, it would take away half the reverence one feels for them. We like to have them involved in mystery. We like to contemplate them with awe, and feel that God was the artist and mixed the colors; that He alone imparts it to each in beauty.

The Cardinal flower speaks eloquently from the roadside as we ride through the country. How rich its bright scarlet attire; how meekly, humbly, it stands, as if looking up and saying, "Though more beautiful than many of our brothers and sisters, yet it all comes from Thee, and we will stand in our places like the rest, fulfilling our destiny of ministering to man, preaching in silence to all who will listen."

The Clematis, how it climbs around the low shrubbery; how lovingly it clings for support; and what thousands of little star-like, white blossoms, throwing out on the air a rich perfume! How lovely it is on its native wilds, as we catch glimpses of it while riding along in the cars, and vainly wishing for just one little spray to call our own. Where does it get its fragrance from? Ah! that is a question science cannot answer, and I am glad it cannot. The botanist will tell us how numerous are the relatives of this climber, many of them shining in purple and gold, but no one can say why each kind of flower emits its own peculiar fragrance.—M. H. S.

WINTER PROTECTION OF ROSES.

MR. VICK:—In your September number I find a letter from C. W., asking how tender Roses may be preserved through the winter north of the 44th parallel. It is almost impossible to keep the life in tender Rose bushes, when they are not removed from their summer quarters. A hundred and fifty miles south of that, where my Roses, in great abundance, bloom from June until October, I adopt the following plan. In the first place, the bushes are placed in a straight line. Where there is limited space and illimitable floricultural ambition, this is impossible. They may then be planted in three or four straight lines. This method of planting very much facilitates the winter operations which I shall now describe. In most towns there are lumber yards, where one can get, for a trifle, culled lumber, as I believe it is called—boards that are unfit for building purposes. Suppose them to be twelve feet long and a foot broad; order as many of them as may be required. Then prepare a number of stakes similar to those used by surveyors; old scantling will do, cut into two feet lengths, and pointed. Drive down these stakes

a foot into the ground at intervals of twelve feet, if your line of Rose bushes be a long one, at a distance of ten inches on both sides of the bushes. Now bend down the branches to the ground, if possible, and fasten them there with crotched twigs. Then adapt your boards to the stakes. The end of each board will come to the center of each stake. Nail it there. You have now a board wall on each side of your Rose bushes. Fill up the space between the boards with dry sawdust made from any wood, except Pine, and close up with a board on top. Leaves will do instead of sawdust, but they make a sad mess in the spring, and a good deal of sawdust may be left for mulching purposes when the cover is removed. Lastly, dig a trench on each side, and bank up with soil to within four inches to the top of the boards.

It is better to have your stakes in their place before the ground is frozen. Above all things, you must be careful not to cover your bushes too soon. It is wonderful the amount of cold they will bear; and yet a frost may happen in November, which renders all covering unnecessary. The boards should be in their places, the top one included, and the banking done, by the first of November. The filling up with sawdust should be delayed until the ground is frozen an inch deep. It is impossible to lay down rigid rules in these matters. Much must be left to the discretion of the operator. I have succeeded better with the above method than any other.—K. O'HARA, *Chatham, Ont.*

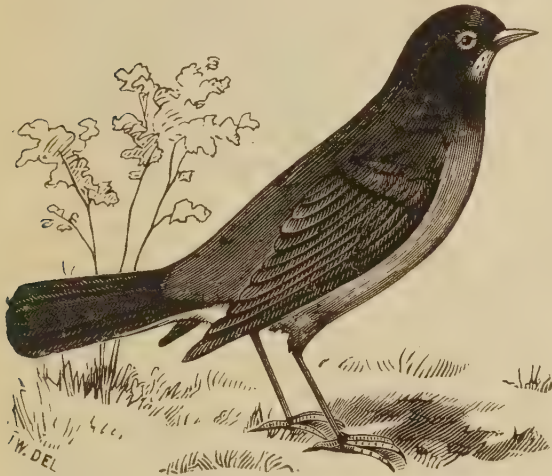
PROTECTION FOR WINTER.

I think it would be a benefit to your readers who live in the north if, just at this season, you would advise them how to care for plants that are almost hardy, but yet are benefited by a little assistance in resisting winter storms. It took me some time to learn that a few evergreen boughs between the rows and above them made an admirable winter protection, and saved me almost every Pansy plant. Indeed, plants thus protected were ready to open their flowers at the first taste of fine weather. For herbaceous plants that die down to the ground, nothing is so good as leaves, only they blow off unless held down by some heavier substance—a little brush, or something of that kind. Last winter, when the ground was frozen quite deep, I took a notion to try to get a Lily bulb, a Longiflorum, to grow in a pot in the house, and thought I would have some difficulty in getting it, but to my surprise I found the soil under the leaves was scarcely frozen at all, and the bulbs had made some healthy roots; so I concluded that leaves made an excellent protection.—S. B.

THE AMERICAN ROBIN.

MR. EDITOR:—I think you will allow me to thank you for some interesting articles given in your MAGAZINE on American birds. Much pleased was I with your description of the beautiful Mountain Quails of California—as beautiful and, I believe, as proud as Peacocks. Since reading your description, which I did a year or so ago, in my quiet home on this side of the stormy Atlantic, I have seen them in their mountain home, and, though small, they are the only bird I have ever seen that can at all rival the English Pheasant in beauty.

On my first visit to your country, I exclaimed, on seeing a pretty bird among the Cedars, "What a beautiful Thrush!" "That is not a Thrush," said several friends; "that is a Robin." Its form, motions, &c., were all like the Thrush that I had been familiar with from

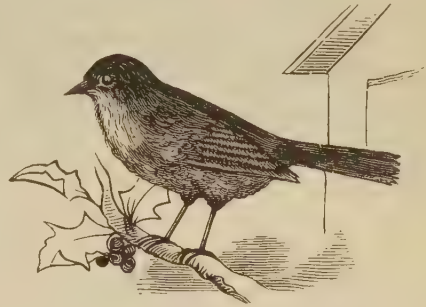


AMERICAN ROBIN.

boyhood. This led me to look up the question, because the red breast was all I could see that at all resembled the English Robin. I soon found that I was correct, and that what is known as the American Robin is really a Thrush. I am not surprised, however, that at the first settlement of the country, on seeing its red breast, so like the breast of the little Robin at home, it should be so named. In a strange land, we love anything that reminds us of home. I saw a little cottage, in passing through Michigan, on the way to the Pacific, that looked so much like one near my own home, that I felt like having the cars stopped and claiming the owners of that home as my friends. I really don't know but I could have gone so far as to name them.

The English Robin is a small bird, no larger than a Sparrow, and it is a pet; scarcely a boy would be heartless enough to injure a Robin, and many crumbs do they get in the winter

season, even from the poor who have few crumbs to spare. The little story of the Robins that covered the lost children in the woods with



ENGLISH ROBIN.

leaves, has done more for them than all the game laws of the world could do.

The English Thrush seems to be a trifle smaller than your red-breasted species, and has a pretty spotted breast instead of a red one, though I notice many of the young birds in America—some of them, at least—have spotted breasts. I have drawings of the Robin, and also of the English Thrush, and as you doubtless have many of the American bird, I think that perhaps their publication would be pleasant to your readers, and show beyond question that the Robin of America resembles the English Thrush and not the Robin.

I have thought of importing a few of the American birds, but might make a bad mistake, as the Americans did in obtaining English Sparrows, for we have now plenty of fruit-eating birds, and though they no doubt destroy a great many insects, and are perhaps a necessary evil, it is anything but pleasant to lose more than half our Cherries, and to be compelled to cover Strawberry beds with netting



ENGLISH THRUSH.

even to secure a quart or two. I heard a good deal of complaint of destructive insects in America, but you don't know anything about our difficulties.—TEDDINGTON, *on the Thames*.



TRAINING GERANIUMS.

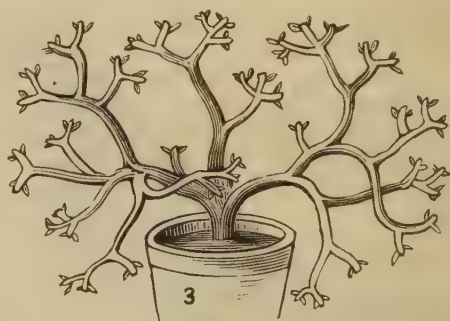
Among all the Geranium growing done by amateurs, it is seldom one sees a well-formed plant. Long-legged, scrawny specimens everywhere abound, and to train a plant for its own special beauty seems to be an undertaking that our flower-loving friends have not yet concluded to do. Perhaps, the following directions for training a young plant from the first stages to a handsome specimen may give needed instruction, and incite some to do better work of this kind than they have heretofore accomplished. We have redrawn the figures and quote the words of an English contemporary.

"The annexed engravings show plants from the first start in October in small pots up to a fully formed plant. Figure 1 is a young plant, the head of which has been taken off to form a cutting, and the buds of which are breaking into young shoots. Three shoots are produced, and those, after growing to the length of four or six inches, are stopped by pinching out the points, produce their lateral shoots and flower in the autumn; and after being thoroughly ripened by exposure to the full sun, are cut down as represented at figure 2. This is what in nursery parlance is termed a young stool or bottom, and is the sort of plant which an amateur should select to grow into a nice specimen. In figure 3 we have the same plant grown another season and cut down; and here it will be



seen it has added materially to its size, and has become a really fine groundwork for a specimen plant. But to form these bottoms is not quite so easy as to write about them. Young Pelargonium shoots are brittle, and hence considerable care and patience are necessary to get the

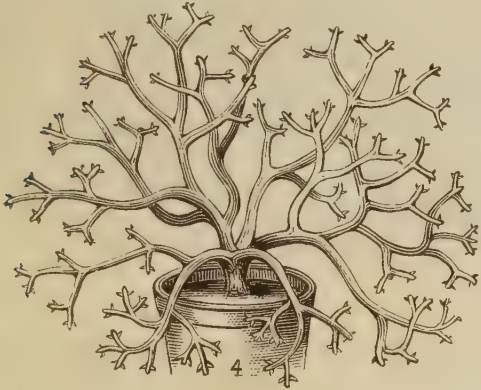
shoots into the requisite form. We first begin with long hooked pegs, and peg the shoots into their places a little at a time, say depressing each shoot a little every three or four days, until it gets into proper shape; always, if possible, taking advantage of the sunny part of the day



and allowing the plants to be rather dry at the time. In the afternoon of a sunny day, and before watering the plants, you may take much greater liberties with the young shoots of a Pelargonium than would be safe in the morning, and hence that time should always be chosen. When the plants get too large for pegs, small sticks of the necessary strength are used, placing them wherever it is necessary to draw the branches to, and to avoid using many stakes a band of bast, mat, or wire is passed round below the rim of the top and made fast; a piece of fine matting or string is then tied to the various branches, and each is drawn into the position it is destined to occupy. When the branches are depressed below the level of the rim of the pot an arrangement of this kind is indispensable, and independently of that it is a very neat way of accomplishing our aim. Without a properly formed stool, it is impossible to get a perfect plant, and therefore no pains must be spared to arrange the branches properly before they get too much foliage. Sometimes branches are liable to split in the fork—that is, where they start from the parent stem—and then before attempting to train them the branches must be tied together by means of strong pieces of soft matting. Thus arranged,

with perseverance and patience, the plants may be made to assume any form you please; but they must be gently handled, and hence never attempt to train a plant except when you have leisure to do so carefully and without hurry.

"In figure 4 we have the plants advanced another year, and it is now of a size sufficiently large for all ordinary purposes. Such a stool, with proper management, and if of a free-growing fancy kind, would form a plant from four to six feet in diameter, and should produce more than a thousand trusses of flowers—a sight worth seeing, and an ample recompense



for the trouble that has been taken in its formation. The stools represented in our engravings are not ideal sketches, but actual portraits of plants.

"After the plants are cut down the growths may be made into cuttings, and at this period of the year there is no better plan of striking the show varieties than by inserting the cuttings in sandy soil in the open air and in the full sun. These make stocky, vigorous plants, and if the wood is well ripened very few cuttings fail to emit roots. The fancies strike better in pots under glass.

"After being cut down the plants are left in the pots to break, and are then shaken out. This shaking-out is a complete work. Every particle of soil is washed from the roots, and these are trimmed and repotted in smaller pots, throwing in a dash of silver sand as the work proceeds. These cleansed roots forthwith emit vigorous spongioles, and the older plants are made new again."

ALONSOA WARCZEWICZII.—A writer in *The Garden* says that this plant "will flower from early spring until late autumn, and the showy flowers are produced plentifully." In our experience, we find that it will not only bloom all summer, but, if carefully potted in the fall, will continue to flower during the winter, producing its small but brilliant flowers in abundance.

BALSAMS FOR SUB-TROPICAL BEDDING.

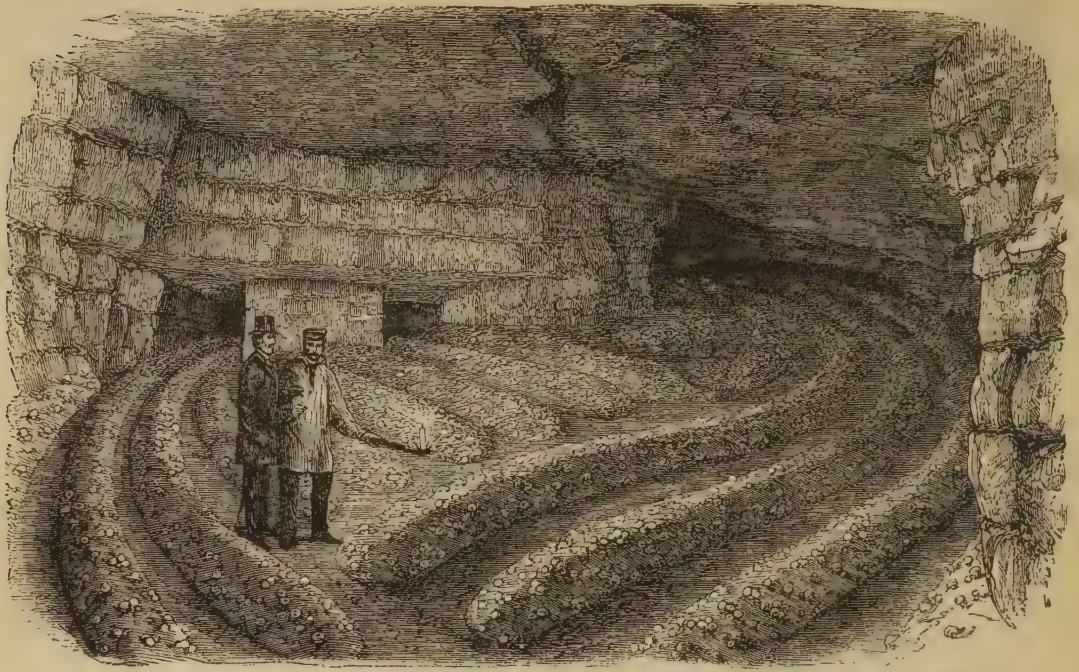
For planting in connection with foliage plants, it appears that the Balsam, well grown, is finely adapted. A writer in the *Gardener's Chronicle* says: "Considering the very effective display that these plants make when associated with stately foliage plants in sub-tropical beds, I think they are worthy of more extended cultivation. There are few plants better adapted for the above purpose than the Balsam, being easily raised from seed, and, as is well known, they are rapid growers if they are planted in a rich soil. Several samples of these plants with us are now three feet through and over two feet high, and they work in admirably with such things as Castor Oils, Cannas, and the beautifully-striped Japonica. The colors vary from brilliant scarlet to pure white, pink and deep purple; and then there is no end of mixed colors as well. The plants referred to were planted out early in June, and I am so pleased with their behavior in the sub-tropical garden that I intend to grow them largely another year."

As the Balsam thrives well in this country, our friends should make a note of this experience and profit by it another season. But it must be remembered that plants to do so well must be started early, in the house, or hot-bed, although we have grown some splendid Balsams by sowing seed in a warm, sheltered bed in the garden. As already stated, the soil where they are to stand should be light and rich, and they will then develop into handsome, well-proportioned, bushy plants. Perhaps some of our readers may think a stretch of faith will be necessary to plant them three feet apart, with the expectation that the plants will cover the ground. Perhaps it may, but a liberal manuring and good cultivation will be found a most efficient aid, and we have no doubt as good results may be attained here as has been across the water.

THE OAK FOR EDGING.

An English cotemporary states the fact of the walks of a kitchen garden at a large establishment being lined with Oak instead of Box, and that "it forms a dense, impenetrable shrub in the winter, and presents a neat, refreshing appearance during the summer months." Such an edging may be formed with but little labor or expense, as it is only necessary to sow the acorns at the proper time, and to stop the young plants when high enough.

LITTLE PIXIE.—English gardeners speak well of Cabbage Little Pixie, on account of its vigor and early maturity.



MUSHROOM CAVE, SEVENTY FEET UNDERGROUND, AT MONTROUGE, NEAR PARIS.

MUSHROOMS.

On a free and easy stroll along the Wye, the Rhine of England, from Hereford (Herry-furd) to Chepstow, where every turn discloses new scenes of wonder, beauty or historic interest, I turned across to have a nearer view of some of the grand bald mountains of South Wales, and stayed some days in the important town of Abergavenny (Ab-er-gain-y.) On going to see the market, where the Welsh women still wear the tall black hat which looks so indescribably queer, I found the great bulk of the vegetables offered there to consist of Mushrooms. They were heaped up in great carts, and were no doubt to be sent by train in all directions, as later I saw carloads of Mistletoe for New Year's adornment going from Hereford. Mushrooms grow well on the richer parts of the close-cropped pastures of Wales wherever the temperature remains near 55° and the showers are gentle and frequent. As to this last, there is said to be rain every day in some places there—a gentle drizzle from clouds driven off the gulf-stream and condensed on the cool mountain tops.

We might enjoy Mushrooms at all seasons here if the caves of our limestone regions, or at least such as are large enough and of easy access, were used as the French use the catacombs of Paris. The main thing is to have a constant temperature of about 55° and humid air. That is the usual temperature and condition of earth caverns, and exists nowhere else in our climate of extremes. Mushrooms are

one of the wholesomest and most appetizing of dainties, and when the conditions suit them they yield abundantly with mere letting alone.—W. G. W.

LARGE FLOWER FARM.

The London *Gardeners' Magazine* contains a description of CARTER & Co.'s seed farm, at St. Osyth, in the county of Essex, England, "in which the immense breadths of *Tropæolums*, Annual *Chrysanthemums*, *Dianthus*, *Godecias*, *Petunias*, *Antirrhinums* and Annual *Phloxes* make their mark upon the landscape, and produce a series of chromatic effects of the most striking character." We have seen this truly grand display, but we can beat our friends on that side of the water three to one with Annual *Phloxes*.

CALENDULA METEOR.—A correspondent of the *Gardeners' Chronicle* speaks as follows of the Marigold, Meteor, which we have described and illustrated on another page: "This beautiful variety of the old pot Marigold is now in full bloom, and with me is greatly admired. The flowers are very double, beautifully formed, of a pale yellow ground color, each petal being margined with orange. It varies in coloring, but is a handsome decorative plant, and worthy of general notice."

POTATO BEETLE.—They have caught the Potato Beetle at last in England, and have him in a bottle. An American who has killed thousands pronounces it a genuine specimen.



PLEASANT GOSSIP.

PETUNIA SPORT.

MR. VICK:—I would like to tell a story of the freaks of my double Petunia. Two years ago last March, a friend sent me, among other things, a slip of Petunia, not rooted. It was badly wilted when I received it, and I had little hope of ever seeing it grow, and did not, really, care much for it, supposing it to be a single variety, from the appearance of the leaf. I placed it in water, where it remained over night, and morning found it as fresh and nice as when first cut. It rooted readily, and June 10th it gave me its first bloom. I think it was the handsomest double Petunia I ever saw. It was the clearest white, with streaks of bright carmine at the base of the petals. It bloomed abundantly through the summer in the open ground. In the fall I cut it back and potted it. It grew vigorously through the winter, and commenced blooming in February, and in a short time it was a perfect mass of flowers, and continued to bloom until warm weather, when I again cut back and set it in the ground. It behaved itself very nicely, but I have never been able to root another cutting from it. This summer, after putting it in the ground, I discovered what appeared to be a shoot coming up from the root, and, thinking I might get another plant from that, tried to cut it from the stock, but, by a slip of the knife, cut the main stalk instead which had at that time twenty blossoms and over fifty buds. I cut it down the 4th of July. By the 4th of August the new shoots were blooming, but there is not a spot of clear white in one of the flowers. The same clear carmine stripes are there, but what was white is carmine several shades lighter than the stripes. From being the prettiest, it has grown to be the ugliest one I ever saw. I have cut it back when in bloom five times before, and it has never disappointed me until now. I wonder if any one else has had similar experience, or is mine an exception.—Mrs. E. P. F., *Pueblo, Colo.*

The peculiar conduct of this plant may seem strange to one who does not fully comprehend the changes that artificially cross-bred plants have undergone, or who is not conversant with their habits.

It is not an uncommon occurrence with Petunias, Verbenas, Pelargoniums, Dahlias, and many others, to develop a shoot having the characteristics of one of the parent plants. This was the case with the Petunia plant here described, and, as by the mis-stroke of the knife the original stock was severed from the root, the new shoot having the character of one of the parent plants, developed and replaced the plant of the improved variety. Such a case is considered one of reversion to the form of a

parent plant. But sports are not always reversions; sometimes they prove to be superior to anything before known, and thus have originated some very fine varieties.

TREATMENT OF AZALEAS.

MR. VICK:—I have two crimson Azaleas, put into my care by an invalid friend. They are six or seven years old, have bloomed for four years past. Each has several woody stems from half a yard to a yard long. They do not seem to have been trimmed or cut back at any time. The owner has the feeling that it will prevent their blooming freely. Please tell me distinctly three points. Can Azaleas be cut back, trimmed freely, put and kept in good bushy shape without injuring the quantity of bloom? When is the proper season of the year to do it? My particular ones have rested in the shade all summer. I have just repotted them. There are young shoots coming up from the roots. Would you advise me to cut off all the old growth and depend on the new shoots for next winter's bloom, or cut off the new shoots and leave the old ones to bloom, and cut off these old shoots after the next blooming, or not at all? My impulse is to cut off the old wood and throw the strength of the root into new shoots, but my friend fears I shall spoil the plants, and I don't know the habits of Azaleas.—E. J. W.

Azaleas, if left to themselves, will develop long shoots that, after a time, become naked below and are furnished with leaves only at their extremities. Flower stems are formed on the new wood of each summer's growth. Consequently, the amount of bloom, other things being equal, depends upon the amount of young wood annually produced. In order to have plants of good shape when they become large, it is necessary to give attention to pinching and training them from the first. The pyramid form, or, more properly, that of a cone, and rounded at the top, is considered the best for the plant, as it allows the greatest exposure of leaf-surface. Two principal methods are adopted to regulate the growth and bring plants into shape: one is by successive pinchings as the growth proceeds, the other by allowing long-shoots to grow and then bending and training them down, thus causing many of the dormant buds along their whole length to break and develop into shoots. The new shoots produce flowers, and then make a new growth that is

afterward subjected to tying in and training down. In this manner the training is continued from year to year. A skillful combination of training down and of pinching is still another method, and probably better than either exclusively. A few sticks inserted in the soil of the plant serve to tie the shoots to, but it is best for the welfare of the plant not to have too many of them thrust in between their roots. Besides sticks, wire rings around the rims of the pots are employed to tie to. If desired, a ring much larger than the diameter of the pot may be used by wiring it with short pieces to a ring fastened close about the rim.

In the present case, it will be as well to leave the plants in their present form, until they have passed through the blooming season, and then commence their training by tying down the long stems to rings.

NOTHING BUT LEAVES.

MR. VICK :—Last spring I sent to you for some garden seeds, which came all right and were of excellent quality. Among them were some Giant Wax Beans, which I planted in the garden about the middle of May. They came up in a short time, the best I had ever had of that variety, for scarcely one failed to germinate. When they began to run, I gave them sticks, which they rapidly climbed, and are now (August 24th) six or seven feet high, but they have never bloomed, nor sent out one blossom-bud. This seems strange to me, for on each side of them I have other varieties of Beans, both bunch and running, that have made a fine growth and are bearing well. I have planted Beans on land that was not suitable for them, and they grew luxuriantly, bloomed profusely, but bore no Beans. I never before, however, had any behave so strangely as these.

Now, what is the probable cause, and what is the remedy in such cases? If the subject is of sufficient interest, the information asked will be very thankfully received. It will probably come too late for this season, but may be of use in the future. We regret this failure in the Giant Wax, as it is a great favorite with us, and we expected a good crop from the early appearance of these plants.—H. C., *California*.

Of the many thousands who have planted this variety of Bean this season, we doubt if another experience, similar to the one here related, can be found. If this be so, the cause of the variation from the general result, in this particular case, must be connected with the locality. What is it?

JAPANESE PERSIMMON.

Is the Japanese Persimmon or Date Plum hardy in this latitude, Central Ohio? Does it have spines or thorns like our ordinary plums? What soil is most suitable for its growth? What is the color of the young bark, and general habit of the tree, robust or dwarf?—W. R. H. S., *Forest, O.*

We have had no experience with the Japanese Persimmon, but our belief is that it is not hardy in Central Ohio. Possibly some of our readers may have tested it and can give the result.

LETTER FROM SOUTH CAROLINA.

MR. JAMES VICK :—The annuals germinated from the seed very readily, and we had some very pretty flowers throughout the summer. *Mirabilis*, *Zinnias*, and *Pansies* are blooming yet. The *Pansies* were particularly fine. There was one good double white *Zinnia*; and, by the way, did you ever notice that the first *Zinnias* which open on a plant are almost always single, and as the flowers get to be more numerous they grow to be more and more double until fall comes? Those that are killed by the frost are usually the largest and most double that have blossomed.

The children had almost enough flowers to satisfy them this summer, and although the eldest child is only nine years of age, all of them, from three years, are familiar with and can call by name such annuals as we have raised this season. Another year I intend to make an entire new selection of annuals, so that the children may become familiar with those which are most common; the names learned during childhood are not easily forgotten. It is surprising to see how many persons there are, some of considerable attainments, who cannot recollect the names of fruits or flowers. I have often repeated the names of Bartlett and Seckel, which are as common to me as *Rose* and *Violet*, to hear the remark, may be the next moment, "I can't see how you remember the names." But I think plants are positively worthless without names; it seems to me they have lost their charms when they have no names.

The first fall month is upon us, and soon our plants must be removed to the pit; there are plenty of *Geraniums*, several *Callas*, three or four *Fuchsias*, *Othonna Crassifolia*, and one or two other basket plants. I think we will have some new plants, but have not yet decided what ones. Can you not name some which would best suit us? In naming our collection I forgot to mention a variegated Century Plant about two years old, and an *Opozona* now three years from the seed. The latter has given us a great amount of trouble in spreading the white woolly *Aphis* among our greenhouse plants. We were never troubled with these insects until we grew *Opozona*. It has been setting on the piazza all summer, and this pest has even been communicated to our *Rose* bushes. We syringed the *Fuchsia* with soapsuds made with carbolic soap, as they were most infested. The *Fuchsias* were blooming profusely until attacked by these insects, that fed on the sap until the leaves and flowers dried up and fell off.

There is a tiny grave here where I expect to plant and care for some of our prettiest flowers. Can you tell me what would be best? I love bulbs, as we could then plant other things without interfering with their growth, and when they are done blooming there would be other plants to replace them. It is a baby's grave, but, oh, how dear to me!—Mrs. F., *Lancaster, S. C.*

The appearance of the pit this winter would be made livelier by the addition of some *Hyacinths*, *Tulips*, *Narcissus*, *Crocus*, *Snowdrops*, and other flowering bulbs; some white Roman *Hyacinths* would give the earliest bloom, and then it could be continued by the other varieties. A few plants of Chinese *Primrose* would always furnish some flowers for cutting, as would also some of the free winter-blooming *Begonias*. *Bouvardias* are almost indispensable, as, also, are *Carnations*. *Stevia serrata* and compacta, and varieties of *Eupatorium*, are very valuable, and we would name, besides, *Abutilon*, *Cyclamen Persicum*, and *Jasminum grandiflorum*. The list may easily be contin-

ued, but those noticed are particularly desirable on account of their easy culture and free-blooming habits.

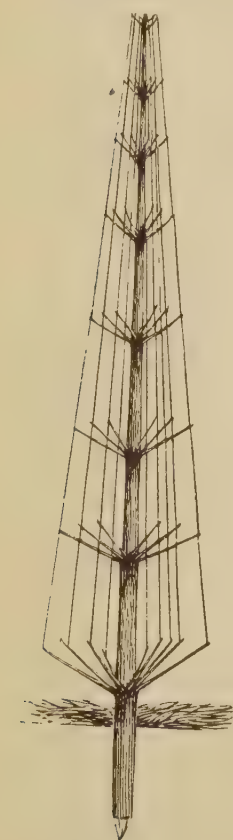
Woolly Aphis may be conquered by thoroughly washing and scrubbing the plants infested with them with soft soap and water, or with carbolic soap as mentioned, or with whale-oil soap. It would be better not to allow this insect to gain a foothold; this may be prevented by carefully watching and looking over the plants from time to time and destroying the first one that appears. For this purpose a little alcohol is the surest destructive agent. A small vial of it may be kept on hand, with a small camel hair brush; the least touch of alcohol applied with the brush is instant death to the bug.

A succession of flowers may be kept about a grave by the use of only plants requiring the least attention. Some of the most desirable are Snow-drops and Crocus, Hyacinths and Tulips, Lily of the Valley, Pansies, Day Lilies, Dicentra, Lilies, Pæonies and Anemone Japonica.

SUPPORT FOR CLIMBING PLANTS.

The readers of the MAGAZINE who live where young Pine or Spruce trees grow can obtain

very easily the cheapest and yet the prettiest trellis in the world. A good many years ago I saw this kind of trellis recommended, and ever since, when such a support was needed, I have gone to the woods and selected a young tree for the purpose. I cut the lower limbs to within about eighteen inches of the trunk, and make every set shorter until I reach the top. The length I leave them, however, depends upon the size of the tree and the purpose for which it is intended. I don't know anything prettier than such a trellis covered with Morning Glories, or the Cypress vine, or, indeed, any climbing plant. I almost forgot to state that I fasten twine or wire to the end of each branch, but this is clearly shown in the drawing I enclose. Leave



a pretty good length below the limbs to insert in the ground to keep the whole firm.—S. W.

SENSITIVE ROSE.

MR. VICK:—I send you a leaf, flower and some seed of a plant I saw blooming in Southern Kansas two years ago. I thought it very pretty. The people in Kansas call it the Sensitive Rose. I planted the seed in the spring of 1879. It died down in the winter, and came up again from the roots this spring. I have looked in vain to see anything like it in your GUIDES or MAGAZINE, and would very much like to know the name. Please answer and very much oblige a subscriber.—J. H. J., Delaware, Ohio.

The Sensitive Rose, *Shrankia uncinata*, is a low shrub growing over a large section of the western country, and is considered a very graceful and beautiful plant. It is a leguminous perennial, with bi-pinnate leaves, the ultimate divisions of which are scarcely a quarter of an inch in length; there are from sixteen to twenty pairs of these leaflets, and in the specimen before us four pairs of leaflets. The leaves of this plant have the sensitive habit of the *Mimosa pudica*, though in a less degree. The stem of the plant, the leaf-stems, flower-stems and seed-pods are all beset with small hooked prickles. The rosy-purple flowers are borne in globular heads on peduncles rising from the axils of the leaves. The plant is apparently very generally admired, for there is scarcely a week in the year but what we receive specimens in a letter from some of our western friends, all of whom speak very highly of it.

WINDOW PLANTS.

Please inform me how deep Calla Lily roots ought to be planted?

Can double Petunias be kept as window plants during the winter, and how must they be treated?—MRS. J. W. B., Collegeville, Pa.

A dormant bulb of the Calla should be planted so that the point shall be just above the surface; the exact depth of this plant in a pot or tub is not a matter of much importance, as it readily adapts itself to circumstances if it has a constant supply of water.

The Petunia is a very satisfactory window plant for winter blooming. A rather warm temperature, a fair supply of water, and regular washing or spraying of the foliage, are the principal requirements after planting in a rich, light soil.

APPRECIATION.—We notice by the premium list of the National Fair Association of Washington, D. C., \$10,000 is offered for the fastest trotting horses; a bronze medal for the best landscape; \$5.00 for the best collection of cut flowers, and \$10.00 for the best collection of plants, not less than thirty, correctly named. For fruits of all kinds, the large sum of \$71.00 is offered; for vegetables, \$54.00, and for dogs, \$151.00.

STEPHANOTIS FLORIBUNDA.

MR. VICK:—Will you be so kind as to give some account in your delightful MAGAZINE of the culture, and description, of Stephanotis. I cannot find any account of it in the horticultural works I possess, but it is frequently mentioned by tourists in England, as well as in English stories, so must be more cultivated there than here. Bishop PATTISON, in his letters, to be found in his Memoirs, speaks of it as growing in the greatest profusion in the Milesian Isles. The following is an extract: "Yesterday I spent two hours in training my Stephanotis, which now climbs over half my veranda. I have *such* Japanese Lilies, making ready to put forth their splendors. Two or three Azaleas grow well; Rhododendrons well. It is very pleasant to see the growth of these things when I return from the voyage. The steps of the veranda are a mass of Honeysuckle. The Stephanotis, with the beautifully scented white flowers, and glossy leaves, covers one of the posts. How pleasant it is?"

A friend sent me from her greenhouse an exceedingly fragrant flower, pure white and shaped like a Jasmine, only much larger. The leaves are fleshy and glossy. Was this Stephanotis? Can it be cultivated as a house plant without the aid of a hot-house? The fragrance resembles that of a Tuberose and Jasmine mingled.—E. B., *Clifton, S. I.*

The information desired above may be found on page 115 of our volume of last year, where, also, there is an engraving of a spray of leaves and flowers. The Stephanotis is a fine greenhouse plant.

DOUBLE TUBEROUS BEGONIAS.

The double Begonias just now making their appearance from European establishments promise well. An enthusiastic plant-grower has just favored us with a sight of two that are in bloom for the first time since their importation. One of them has a small flower scarcely three-fourths of an inch in diameter, of a clear



cherry, and very double. The other one, which is much the handsomer, is labelled Comtesse Horace Choeteau, is an inch or more in diameter, very double, and of a delicate, soft shade of rose; the young plant in a three-inch pot presented a number of flowers and buds, indicating a good blooming habit. As a double flower it is remarkably fine, the petals being

well-formed, pretty smoothly laid and imbricated. The bulbs of these double-flowered varieties will necessarily be scarce, for some time yet, in this country.

NIGHT-BLOOMING CEREUS—TUBEROSES.

MR. VICK:—Please excuse the liberty I take in writing to you for information upon a point not quite clear to a few ladies in Vineland. There has arisen a little discussion about the Night-blooming Cereus, one lady affirming that it does not belong to the Cactus family at all. She says it has not a flat leaf, but that the Cereus family are distinct, with round stems, and terribly spinous.

Now, there are some specimens in town which we all suppose to be the true Night-blooming Cereus. They have a flat leaf, very large, a thrifty growing habit, occasionally sending up a long round stalk. They bloom at night, and have intensely fragrant, large, white, magnificent flowers. If it is not too much trouble, will you please set us right in this matter? Is there a night-blooming Cactus, distinct from the Night-blooming Cereus—if so, what is the difference?

I would also mention that I this year planted about forty bulbs of Tuberose. I took the large bulbs and removed every small one, planting one single bulb in a place, and all have blossoms, nearly all throwing up two stalks, many three, and some even four. Is this usual, or even common? I dug up one the other day, and found bulbs formed around the old one, each an inch in diameter.—J. T. P., *Vineland, N. J.*

The Cereus is a genus of the Cactus family. The species generally known as the Night-blooming Cereus is *C. grandiflorus*, and its appearance, as growing in a pot, is shown in the accompanying illustration. Besides *C. grandiflorus*, there are other species and varieties of Cereus that are night-blooming. It is usually mentioned as a characteristic of the genus, Cereus, that the plants belonging to it have long, angular stems and not flat expansions like those of the Epiphyllum, or of the Opuntia; but to this statement there is at least one exception, that of *Cereus Quillardeti*, which has flat stems. We are not informed whether this species has a night-blooming habit or not. However this may be, there are reasons that lead us to conclude that this is not the flat-leaved species mentioned above as night-blooming, but that the plant in question is some species of Epiphyllum. *E. latifrons* is night-blooming and has large, pure white flowers, with a sweet odor, and this may be the one cultivated in Vineland.



The Tuberose bulbs mentioned were very fine ones; ordinarily, there is, of course, only a single stem. In the present case, unusually strong bulbs were probably planted in a rich soil and received the best of care.

A FEW QUESTIONS.

MR. VICK:—Having been for some years a greatly interested reader of your *GUIDE* and *MAGAZINE*, the kindness and patience with which you answer all sorts of questions encourages me to ask a few myself. I will put them as briefly as possible to avoid wasting your time.

1. Do you advise the use of "Bowker's Food for Flowers" for house plants, and can liquid manure, made from stable manure, be used on them safely, especially on Ivies?

2. Which is best for planting out in the garden in spring, old Geraniums taken up in the fall and just kept alive through the winter, or young ones raised from slips and kept growing in the house?

3. In reading the experience of two of your correspondents with Callas, each of whom reports good success, I observed that one says, in potting a Calla in the fall, it should have a pot only just large enough to contain the roots, while another says it should have a large one. I am going to take mine up soon, and should very much like to have your opinion on this point. You are the authority to decide when amateurs differ.

4. Can a Maurandya vine be taken up in the fall, cut down to the roots, and put out new shoots and grow in the house? Mine has so much top that it is certain to wilt and die if not cut down; and could it be made to trail over the side of the pot instead of climbing?

5. What can I do to make a Kenilworth Ivy grow luxuriantly, as I know they can grow? I am so fond of them, and I keep buying them from the greenhouse only to see them pine and dwindle, and finally die outright, although the florists tell me they take no especial care of them, and never knew one not to do well.

6. My interest has been greatly excited by your description of *Mertensia Virginica*. I am excessively fond of blue flowers, and never, to my knowledge, saw any of the plant just named. How can I get some of it? I have never seen the seed advertised in your Catalogue, or any other. I could say and ask much more on this subject—of flowers, I mean—but fear to take up too much of your valuable time. If you will spare enough to answer my questions, you will much oblige one of your many friends and admirers.—M. A. S., *Newport, R. I.*

1. "Bowker's Food for Flowers" we know to be an excellent fertilizer. Weak liquid manure can often be used to advantage on plants, especially when their roots have filled the pots and they are blooming profusely; and often in the case of hard-wooded plants, when they are making their growth. The Ivy grows so freely with a sufficient supply of water we have never seen the necessity of using liquid manure on it.

2. Old Geraniums that have been well kept over often bloom profusely in the garden, but as a rule the largest flowers and trusses are produced on the younger and more vigorous plants.

3. The many experiences that have been given by our correspondents in relation to the Calla, make it evident that the plant is not very particular as to its treatment, except in one respect, and that is an abundant supply of water while growing and blooming. A six-inch pot is large enough for a medium-sized plant.

4. In removing a plant of Maurandya, it should not be cut down to the root. In the

case of a large plant, a portion of the top may be cut away, and if kept in the shade a few days after potting, and the foliage freely sprinkled from time to time, it will get over the shift in a short time and be ready to start into growth. The Maurandya is a climber rather than a trailing plant.

5. Probably the trouble you experience in raising Kenilworth Ivy is caused by a dry air, and if you obviate that, the plants will grow well enough.

6. *Mertensia* can be obtained from some sources, although it is not common in the trade. Plants that are not usually offered by dealers can frequently be procured if ordered early in the season.

JAPANESE GARDENS.

MR. VICK:—I suppose it will be readily admitted that the Japanese are a very singular people, and the more we become acquainted with their products and ingenuity, the more our curiosity changes to genuine admiration. In some branches of the fine arts they cannot be



excelled, and perhaps not equaled. Their decorative art works are exceedingly tasteful, and exhibit great skill, a wonderful degree of patience, and fine manipulation.

But the object of our writing was to call your attention to the accompanying sketch of a natural landscape, with house, bridge, trees, shrubs and brooklet, all in the small space of an ordinary bowl; for of all the oddities of Japanese industry, this is one of the oddest. These landscapes are real—that is, the houses are toy houses, but the vegetation are dwarfed specimens of Pines and other native trees and shrubs in actual growth. This dwarfing process extends over years of careful tending, and fine specimens of these living miniature landscapes bring a high price in market, and find ready customers. Now, I don't suppose any of your fair readers will try this experiment, but it is one of the curiosities of the old world, where time does not seem to be of so much importance as with us.—J. W., *New York*.

PLANTS IN GARDEN AND WINDOW.

MR. VICK:—Will you please answer the following questions?

1. What treatment does *Iris pavonia* require? I purchased one two years ago. It has never bloomed.

2. How shall I treat a Silver-leaved *Geranium*? Can it be grown successfully out of the greenhouse? I have been told not, and have failed three times. I am very anxious to have one grow in the sitting-room window this winter.

3. I have a drooping *Begonia glaucophylla scandens*, which was one year old last spring, but has never bloomed, although it grows and is a large, thrifty-looking plant. How old should it be to bloom and at what season of the year?—MRS. M. D. H., *Wellington, O.*

1. Ordinary garden soil and culture is all that this *Iris* demands. A rich soil and good cultivation will give the best results.

2. The Silver-leaved *Geraniums* require no treatment specially different from others, but they are not as strong growers, and will not thrive so well under adverse conditions as the green-leaved varieties; consequently, be sure and maintain a moist atmosphere, give the full benefit of the sun, admit fresh air when the weather is favorable, and, while the plant is growing, a little weak manure water may be used to advantage.

The *Begonia* mentioned is a very free bloomer both summer and winter. Bring it up to the light, and give it air in the middle of the day. We do not know how these plants have been managed, or if there has been anything wrong in their treatment, and therefore can only make general suggestions. From the description given of them, it would seem as if they had been kept too dark and close.

FICUS AND COLEUS.

1. I have a *Ficus elastica* about eighteen inches high. Should it be stopped to make it branch, or allowed to take its own way?

2. What is the winter treatment of *Coleus* plants?

Our *Snowball* bush has been in bloom the second time this season for the last four or five weeks. The balls are small and scattering, though quite noticeable. The drought stopped its growth when the new branches were four to eight inches long, and it is on these twigs the blossoms appeared.—L. J., *Middle Creek, Ill.*

1. The *Ficus* may be stopped whenever it is wanted to branch. It should not be allowed to run to a single stem if disposed to grow too high without branching.

2. The *Coleus* in the early winter months needs only warm, greenhouse treatment, and is then ready to be cut down and made into cuttings, for which purpose only are the plants worth keeping over.

HARDY BULBS AND SHRUBS may be planted until the ground is frozen, but don't delay it too long, because winter sometimes sets in unexpectedly.

THE PARROT TULIP.

MR. VICK:—You will perhaps recollect that I sent you a curious Tulip that attracted a good deal of attention in our neighborhood, on account of its many colors and curious form. You kindly answered my inquiries by letter, and promised to give some facts in the *MAGAZINE*, in time for planting. Please allow me to suggest that the time has come, for fear you may have forgotten.—JULIA H.

The Tulip referred to by our correspondent is the Parrot, called so, we suppose, on account



of the colors, being red, yellow and green. It is a very showy Tulip, and makes an exceedingly brilliant bed. The bulbs can be procured of most florists, at about fifty cents a dozen, and may be planted any time before the ground is frozen. In our next we will give some general instructions for the cultivation of Holland bulbs.

PROPAGATION OF CENTURY PLANT.

MR. VICK:—Can you tell me through your *MAGAZINE* how the Century Plant is propagated? We had a small plant in our flower border this summer, and a few weeks ago discovered a tiny plant about six inches distant. Several of the lower leaves bent back and touched the ground. I have thought it may have rooted from one of them.—D. R. G., *Sky Farm, Mass.*

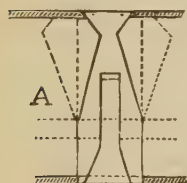
The Century Plant is propagated by the offsets or young plants sent out from the roots of the old one. The young plants may be removed when they have made a few leaves, and if properly cared for will grow without difficulty.

CINCINNATI EXPOSITION.—The managers of the Cincinnati Exposition offer \$400 for the best artistic display of designs in cut flowers; \$50 for best display of cut *Asters*, and equally liberal premiums through the whole list. Evidently the Cincinnati people are not giving their best premiums to encourage horse-racing and gambling.



ORNAMENTAL FENCE AND GATE.

Mr. VICK :—The drawing sent herewith will, I trust, convey an idea of ornamental fencing and gates, designed in purely Egyptian art. At all events, it may be relied upon for entire originality. The object in view is to produce something at once attractive in appearance, classical in design and easily constructed.

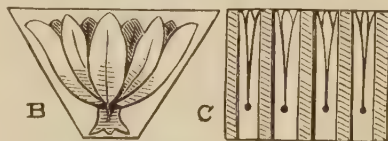


How far I have succeeded, I leave my readers to judge. A brief description will sufficiently explain the working details. The gate is a three-barred one, framed in the ordinary way, and braced with a flat band of iron about one inch and a quarter wide and a quarter of an inch thick, bolted to the end posts with the hinge bolts. The palings are sawed out of inch stuff, say twelve inches wide, and secured on to a rabbet, or, still better, inserted into a groove in the top and bottom bar, the middle bar being really two battens stop-chamfered, nailed to pales. The gate frame is also stop-chamfered. The palings are sawn as shown in diagram A. The center pale is, of course, a separate piece, slipped in between the others. The gate is four by eight feet, and the fence is two feet high.

The hinge-post is circular in form, with either square or round base. The ornamentation of the shaft is the broad form of Lotus leaf. The latch-post is square throughout, the base ornamented with Lotus buds, as shown on a larger scale in diagram C. B represents the Lotus flower ornament at the base of the gate. They are to be cut out of inch stuff, the markings of the leaves to be cut with a carvers'

gouge or graver, as, indeed, should all the carved work.

The vases are constructed of wood, except the upper portions containing the plants, which are intended to be made of terra-cotta or brown clay, the ornamentation being relieved with light green paint, *eau de ville*. The vases, gate and fencing may be painted the same tints.



If, however, the more striking effect of the old Egyptian art is preferred, then vermilion, edged with bright blue, would be the appropriate colors.

The design is drawn to a scale of four feet to the inch, and can be measured with an ordinary carpenter's rule.—J. E., *High Park, Toronto*.

REMOVING LILIES.

Is there any danger in removing Lily bulbs early in the autumn before the leaves have fallen? It would be a great convenience to me to move them now, if I can do so without injury. Also, how soon should I take up Ivy plants and other climbers?—MABEL.

Lilies can be removed much earlier than people suppose; in fact, almost any time after the the flowers have faded. The only objection is that the little bulbs that are attached to the stems are sometimes injured or destroyed.

Climbers should be removed to the house before the nights are cold, or the leaves will fall after removal. Keep the plants in a cool room for a few days after removal. Do not give them fire heat until absolutely necessary.

DWARF SCABIOSA.

I only added two or three new flowers to my little collection this summer, and the prettiest of them, and one with which I am very well pleased, is the Double Dwarf Scabiosa. I don't know how many flowers I have cut from a few



plants, but many hundreds, and they make up very nicely in bouquets. Though the Scabiosa is an old flower, it is not much known or cultivated, and your lady readers will find it quite as good as many an expensive kind. I send you a sketch of one of my plants. The tallest one I have, to the highest flower, is about fifteen inches.—J. N. B.

PLEASANT WORDS.

Nothing affords us more pleasure than to know that we are not laboring in vain, but that the good seeds we are endeavoring to sow all over the land are producing a harvest of pleasure and profit. Our good friends will not allow us for a moment to become discouraged, and we sometimes think magnify results. However, we thank all for their kind words and wishes. A note just received from the honored Father of American Horticulture, the Hon. MARSHALL P. WILDER, affords us more pleasure than our friends can realize, or we can express :

MY GOOD FRIEND :—I cannot refrain from expressing to you the pleasure I experience in perusing your beautiful and useful MONTHLY, and although I am pretty well versed in the subjects of which it treats, I always derive profit from looking over its pages. Its execution is excellent, its engravings unusually neat and correct, and its volumes constitute a valuable addition to our libraries of floriculture. Hoping you are amply rewarded for your enterprise and efforts to promote the happiness of your fellow men, and especially their "better halves," who are your delighted patrons, I am, as ever, yours, MARSHALL P. WILDER, *Dorchester, Mass.*

From CHARLES DOWNING and JOHN J. THOMAS, names held in honor all over the

civilized world, we have received almost similar expressions. These cause us to resolve to put new life and energy into our beautiful work, so that we may continue to merit the good opinions of such valued friends.

EARLY LETTUCE.

There are very few people not fond of Lettuce in the early spring. Having removed from the city, where early Lettuce could be bought at the markets, I was much at a loss for this refreshing salad plant—at least, until quite warm weather. Knowing it to be quite hardy, I last autumn sowed some seed in a warm, dry spot, and in a week or two the plants were up. Before hard frost, I placed around my little patch some boards—to be particular, an old door frame—and over this some loose boards, covering about two-thirds of the space, so that there was about one-third uncovered for light and air. It was where it got the best of the sun, sloping southeast, and it was a surprise to find how early I had young Lettuce from this rude bed. Of course, this will be of no benefit to those who have hot-beds and other conveniences for forcing vegetables, but to very many of your readers I think the knowledge may be useful. This is about the time to sow the seed.

To get early Pie Plant, just place an old barrel over the root in the fall, and throw around the barrel a lot of manure, or old straw and refuse, and in spring the Pie Plant will start and produce leaves wonderfully early. Some think putting the barrel over in the spring is just as good, but I am convinced the autumn is the best time.—ELLEN.

THE HONEYSUCKLE.

Each day at dusk, anear my window comes
A little, buzzing bird, that darts and hums,
Eager to sieze of all the sweets the best,
Yet more content with one than all the rest.

I like the tiny bird of plumage rare,
Of garden's pleasures would a portion share;
But take not this or that, sweet Rose, or briar;
The Honeysuckle's bloom is my desire.

So, like the bird, I rest the vine beneath,
While fragrance satisfies with every breath,
Lulling a listless hope, a dreamy want,
Courting oblivion at Lethe's font.

When years full-numbered shall enwrap my soul,
And I of life's long race have reached the goal,
A spicy scent of Honeysuckle rare
From early life shall happy mem'ries bear.

ELLEN L. KNOX.

THE LAWN.—If Lawn Grass is sown at once, it will have the benefit of the fall showers, and should come up well in a week or so. Give a dressing of manure before hard frosts.

THE HOLLYHOCK.

Among the many admirable herbaceous plants there is a stately one that has always been a favorite with me. I mean the old Hollyhock. When a boy, I enjoyed entrapping the bees in the flowers, and then hearing them hum. But those were single flowers, and now I have the



double, as perfectly double as any Rose could be, and thick masses of these spikes of flowers, covering the flowering stem from a foot or so of the ground for two or three feet. I think every one who has a garden should grow the Hollyhocks. I send you a flower, not very large, because the best are gone, but you will see it is as double as double can be. I try to grow a few plants every year, so that I always have some that are young and vigorous. Any particularly choice kinds I propagate by cutting away nearly all the flower stems. This causes them to spread out and make large masses of leaves and roots. These I divide early in the autumn, so as to give them a chance to root before severe weather. Sometimes I divide the roots in the spring, but where the ground is drained I like the fall the best. It is not at all necessary, but I find some good in covering the crowns of the plants with a few boards to keep off the wet in rains and thaws in the winter.—W. J., *Gananoque, Canada.*

PURE WATER FOR CUT FLOWERS.

MR. VICK :—Perhaps all your readers do not know that the water in flower vases can be kept sweet in the warmest weather for a week or more by immersing in it a few twigs of Cedar. In broad, shallow receptacles, it also makes a nice ground-work for inserting short-stemmed blossoms. Probably the twigs of any resinous wood would have the same effect. During the past busy summer I was glad to have accidentally discovered a respite from the daily renewing of flower vases.—MRS. M. B. B., "*Retreat.*"

A FEW LATE FLOWERS.

I send you enclosed in a little box a few of the late flowers I have now, September 16th, in bloom. The most brilliant bed I have on my place is the double Portulaca, and I think every plant in the bed is quite double. I must, however, have taken out about one-quarter of the plants as soon as the first flower appeared, and proved single. These I transplanted to a little vacant bed, and not one died; when they became older many of them proved good flowers.

My Perennial Peas, since the cooler weather, have flowered quite as much as in the early summer, and are giving masses of bloom. What a good hardy plant it is, and how beautiful. Everybody should have a few plants. I don't know how it is, but I find young plants a good distance from the old. Sometimes I think they come from pieces of the roots removed in weeding, for I found this fall one small plant in flower on a bed of decaying weeds and rubbish in one corner of my garden.

The Annual Stocks are now in perfection. I find these do better, also, if the plants are a little late. They are not easily destroyed by cold. Last autumn I had fine flowers after a



DOUBLE PORTULACA.

good deal of frost. The White Candytuft will bear hard frosts. I have had it looking well in the garden until the 20th of November in Central Michigan.

The Japan Pink I also find bears frost. When it is later in the season, I will give your readers a list of the flowers that have endured the frosts of this autumn without material injury.—DELLA.

SHEEP SORREL.

MR. EDITOR:—Having had two lengthy dry spells in Delaware county the present season—one commencing in May and continuing until after harvest, the fields in pasturage being brown and bare, and the other in July and August just past—we have been surprised by the appearance at the end of the first dry spell, as soon as the Grass again wore a spring-like appearance, by a profuse growth of Sheep Sorrel. In the early morning and on cloudy days, the fields were enlivened by a contrast of pinkish yellow with the green. Whether this sudden appearance of the plant in such profusion was owing to the drought and sudden flush, I know not; certainly the plant must have been in waiting for an opportunity to show itself, as it could not in so very short a time as a few days, have sprung from seed and become of age to flower, after every sign of vegetation was apparently so dead. These lands have lain in short pasturage half a century at least, without being tilled or cropped in any other way, and in all this time I have no present recollection of ever having observed the plant growing there before. How can indigenous vegetation, as it were, watch and wait for years an opportunity for so brief a season? How can their seeds lie dormant on the damp earth, or, if vegetated, how live without power to develop?

The plant is quite acid to the taste, and old agriculturists say that the growth of Sorrels indicate a need of lime in the soil to sweeten it. But Dr. DANA, in his concise little "Muck Manual for Farmers," tells us that all soils contain lime enough to grow any crop, if their silicates be only oxydized—that is, acidified, to render them soluble. And I know that if this ground, over which this plant has so suddenly thrown its yellow sheen, were only plowed and planted in Indian Corn, would grow from sixty to seventy bushels of grain to the acre; or, if sown to Wheat, from twenty-five to forty-five bushels, according to the variety sown, would be the yield. At the same time, I doubt not that fifty bushels of lime to the acre would free a vast quantity of insoluble geine that now lies water locked in the soil; but, as sure as it would do this, it would also waste from the soil all the elements it rendered free that was not immediately assimilated by the growing crop, or again chemically combined with some other ingredient of the soil awaiting the living presence of other vegetation to promote electric motion.

But this is not what I more especially wanted to get at in this connection. I want to know how the elements of atmosphere come to favor the growth of an acid plant more especially this season than others? Whether it was owing

to the absence of uncombined lightning, or electricity, in the upper air that lift the elements, as combined in soil, without a moving cause to neutralize its excess of acidity, thus causing a vegetable growth prior to the presence of its seed in the soil? I want to know whether, if it were possible to destroy this year all the seed of this Sorrel in the country we should again have a plentiful crop of the plant the very next season the atmosphere became as favorable to its growth as it evidently seemed to be the present one? Do "stocks and stones rise up to praise when man is dumb?" Or, rather, as the seed is not before the plant in whose sap alone it is concocted from out the elements, am I practical in my suggestion?—SIGMA, *Chelsea, Pa.*

[We do not see anything unaccountable in this case, and it is one that is repeated in all parts of the country. The little Sorrel (*Rumex*) plants, which are perennial, made their growth early in the season, and were, no doubt, stunted by the drought. As soon as the rains came they threw up their flower-stems. The idea that the seeds had germinated, and were lying in the ground without farther development, or that the plants sprang up without seed, are both equally unfounded. The subject seems a clear one without the supposition of lightning, combined or uncombined, or any unusual condition of the atmosphere.]

LOVES ME? LOVES ME NOT?

*Come, Daisy, give me an answer true,
Will he ever love me enough to woo?
Will he ever take my hand in his own,
And vow to be mine, and mine alone?
Daisy, your hair is white as the snow,
Surely you're old enough now to know.

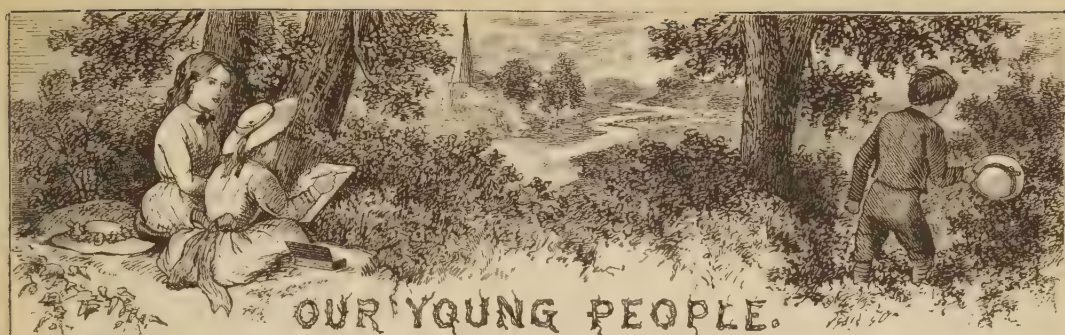
Oh, I would wait till my eyes are dim,
And my step is slow—for love of him!
Oh, I would wait till my hair is gray,
And my years are few—for that sweet day!
"Loves me? Loves me not?" I pray you tell,
For I think you know the secret well."

The poor little Daisy hangs her head,
For the truth in sorrow must be said;
And now all shorn of her snowy hair,
I find no tidings of comfort there.
But what kens the Daisy? Daisy's dumb;
God only can tell in years to come.

—LUCY WADE HERRICK.

*In allusion to the practice of plucking the petals one by one as the questions "Loves me?" and "Loves me not?" are alternately asked. The last petal remaining is supposed to answer affirmatively the last question.

LOOK ABOUT.—This fine Autumn weather; look about a little and see what can be done to improve your grounds. Some changes may be desirable, or some trees and bulbs planted. Without forethought there is no garden and no gardener.



THE FAIRIES GIVE A PICNIC.

Before Goldinore was fairly awake next morning a low, penitent voice was saying in her ear, "I was rude to you last night; I'm sorry."

Instantly a pair of arms was thrown around Silvereen's neck, and she was drawn closely down to a very sleepy face, while a sleepy voice replied: "I was rude, too. I ought not to have spoken of your drive unless you had first mentioned it. But we were so busy all day I thought you had forgotten it."

"No; I was ashamed of it. And it was my neglect of the day before that made us so busy. I was too mortified to talk about it."

"Well, it's all past now. Just slip in here with me a minute while I tell you about a strange dream I was having when you awakened me. Long before I went to sleep last night the Owls were hooting dismally, the great black Bats were flying all about, and that horrid Dog that we so dread had howled so long in a most dreary way; and I began to wonder if those plants we had taken from their native haunts and moved into strange places could have any sensation of loneliness, and if they had in the least degree such natures as the creatures they were named after; and while wondering I fell asleep. Presently the howling of that dreadful Dog turned into little, sharp, cross barks, and as I looked and listened the sounds seemed to come from where we had set the Dog-fennel; and, sure enough, it was tossing and shaking about until the blossoms were flying in every direction. Then I thought the Pig-weed began to grunt and squeal, and the Catnip to hump up all her branches, and the Mouse-ear to crouch and shrink away; while, on the other side, a growl came from the Tiger-lily and another from the Wolf's-bane; the Foxglove tried to clutch the Henbane, which flapped its leaves and squawked; the Chick-weed trembled and screamed with fright, the Spider-wort leaped for the Catchfly, the Gooseberry shrieked that it didn't want to be picked, and the Rag-robin, Larkspur and Crowfoot tried to hide in the

Eel-grass, but that wriggled away as fast as it could, and the Toad-flax hopped after, while the Harebell rang a fearful peal and fled away, leaving the Horse-raddish snorting, the Cowslip bellowing, and the Sheep-sorrel baa-aa-ing in one dreadful medley. I was terribly frightened. I am glad you wakened me."

Silvereen laughed a little and then said:—"It was all my fault that you had that worrying dream. If I had let you go to sleep feeling happy you would have had pleasant dreams. This will help me to remember what I have been taught—that if we have wrongfully made any one trouble, we should try to make amends before we lie down to sleep. It is not good to let the awful stillness of God's silent nights settle upon a consciousness of wrong-doing. I have had two unhappy nights now from this cause, and I do not intend to have another."

"Your talk is rather solemn, I think. Didn't you sleep well last night?"

"I didn't sleep at all. I heard the Owls and Bats the same as you did; and I could see through the bower some glittering stars that shot their rays of light straight into my heart, and I knew that they saw just what I am; and I resolved that I'll attend to my duties hereafter at the proper time, and that I never again will let little things vex me. After that the hooting and howling died away, the stars smiled lovingly upon me, and the Bats flew off to hunt for some other little people who were going to bed with something wrong on their minds."

"I wonder," said Goldinore, "how many chambers they flew into last night."

"I don't know. But there is the dressing-bell, and now we must make haste, for this is the day of the picnic, and since I have made up my mind to always do right, and have confessed my wrong to you, I feel light-hearted once more, and am sure we shall have a pleasant day."

The morning proved fair and delightful, and Red Spider was very busy arranging a long table in the shadiest spot. He had sent to the Pitcher-plants and secured beautiful pitchers,



ON THE WAY TO THE INSECTS' PICNIC.

which he had arranged at intervals to hold plenty of fresh water. Then he went to see that the various water-craft that he had engaged were on hand in season; for he had learned the day before that the meeting which he had accidentally attended, had been appointed by the winged creatures which could easily fly where they chose, without the least regard to those who could only get about with the greatest difficulty. Many of the aggrieved members had a tedious time getting across the moat by crawling up the trees on one side and down on the other at a point where the branches happened to meet above the water.

"Thus it is," he had told the fairies, "that the fortunate ones everywhere are too apt to make plans without the least reference to the convenience of others."

Silvereen told herself to remember this.

Red Spider found that the Water Beetle and the Water Boatman were already at the landing on the other side; the Water Skater and the Water Bear were in sight. The Water Flea had sent word that he was disabled and could not come, for which nobody was sorry, as such a giddy sort of skipper was always getting into trouble and capsizing its passengers.

Meanwhile Silvereen and her friend were on the ground awaiting the arrivals. Everything looked lovely. Goldinore smiled as she noticed that the Tiger-lily, Foxglove and all the rest were standing in their places as demurely as possible. She felt glad that she did not always have to live in dreamland. She would like to go there some time when she was wide awake and see how things really are.

But now the rustic crowd began to appear. There were slugs and grubs and bugs without number. Some came flying, some walking, some crawling, and others wriggling along, until at last all were collected and their food deposited on the table. The fairies were surprised at the variety and abundance, and were less inclined to laugh at them.

But some of them were so grotesque in appearance that it was impossible not to be amused. But Silvereen declared that ugly and queer as they were, if they proved to be well behaved she should feel a respect for them; and Red Spider was glad to know that his mistress was becoming so sensible.

There was one, however, so particularly disgusting in appearance as to excite pity. She inquired his name, and learned it was the Pear Slug-Worm; and then Red Spider pointed out to her some of the others by name. There were the Meat-fly, Potato-bug, Squash-beetle, Onion-fly, Pea-weevil, Pickle-worm, Cabbage-butterfly, Parsnip-butterfly, Cheese-mite, Sugar-

mite, Currant-moth, Apple-borer, Plum-weevil, Peach-borer, Wheat-midge, Wine-fly, and others too numerous to mention.

As the attention of the fairies was thus called to them separately, they observed that some of the worms had curious-looking clumps of small projections on their bodies, and some of them were almost covered. Red Spider told them that each of those points was the end of a tiny Chrysalis that was partially imbedded in the body of the worm; and that if the worm were imprisoned under a glass screen they would soon discover that the top of each one would raise up like a lid with a hinge, and stand open while a wee black fly would escape from within.



While they were exclaiming and wondering about this, and commiserating the poor creatures who had to carry about such torturing burdens, their attention was arrested by the loud, blustering talk of the Wine-fly. He was swaggering and boasting that he drank nothing stronger than wine. Yet it appeared that his wine-bibbing made him disagreeable and disgusting to everybody; and when he strutted up to Silvereen and inquired if she wasn't "rather t-tolerably—fond—of—g-gay—dri-i-ving," she thought she should have fainted.

When the dinner came off everything was found to be nice and fresh, and the desert of fruits was delicious. The Wine-fly sent his wine around the table, but every one refused it, and the fairies observed that everything was orderly until the appetites of the diners began to be appeased. Then their tongues loosened, and their whole conversation turned upon the selfishness of Man in wishing to deprive them of the little required for their sustenance. Red Spider listened, and learned presently from their own words that the plants and trees upon which they were feeding often died, obliging them to change locality, which they thought a great grievance.

So he ventured to suggest that perhaps this was the cause of Man's enmity to them. But at this they all flew into a rage; and during the high words that ensued a great rustling was heard in the leaves and shrubbery about them, and looking around it soon appeared that news of the great honor paid this assembly had spread abroad and created such jealousy that a host of hostile creatures, forming a vast military company, had come to annihilate them.

There were thousands of the Army-worm, hundreds of the Soldier-crab, scores of the Bombadier-beetle, and even the Sword-fish and Drum-fish had allowed their indignation to get the better of them and were flopping along,

gasping as they came; while the Snap-dragons on the ground caught the spirit of warfare and shot their ammunition right and left in the most reckless manner.

At sight of this array the feasters fled the table. Those who could fly soared in air and were seen no more. The others sought hasty refuge under anything that could hide them. The two fairies looked on in dismay for a moment, and then fled screaming to their bower. Red Spider being left alone with the enemy soon quietly dispersed them.

"And thus," thought he, "ends the feast of a set of greedy, destructive creatures who are always complaining, because they are sometimes molested in their work of destruction."

After the great fright into which the fairies had been thrown, Silverreen declared that their teeth were chattering so and their nerves in such a state that they should be unable to sleep a wink. So when the dew had fallen their good Red Spider brought them a sparkling drop from a Poppy blossom, and bade them each to take a potion to prepare them for pleasant slumbers. Then he quietly spun too strong hammocks, and suspended them from the stamens of a drooping Water Lily in the bower, so that their gentle swaying might invite to repose his darling mistress and her friend. By this time the Wood-tick was tapping out the strokes of eleven, and Red Spider showed the two to their hammocks swinging underneath a grander arch than ever adorned Solomon's temple.—MRS. M. B. BUTLER.

THE MELONS.

MR. EDITOR:—My sister had a Christmas present last Christmas, and it was a subscription to your MAGAZINE. It was given by our uncle who lives only about five miles away, near the lake. So ANNIE has been getting her MAGAZINE every month, only once it was so late she feared it was lost. She has the numbers clean, and when she gets them all they are to be bound and put into the library. I did want one of the pictures pretty bad, but of course it wouldn't do to spoil the book, so I didn't ask for it. When father saw what sister had for a present, he felt sorry he hadn't got me something like it, I guess; so in about a week a book with green covers and lots of pictures came, by mail, with my name on the wrapper. I didn't know who sent it, but Sis knew father had written for it, and sent the money. It was your FLOWER AND VEGETABLE GARDEN. That is all about the books; only we looked at the pictures first and then read about the flowers and vegetables. Sis said Melons are not vegetables; that Carrots and Potatoes are vegetables, and not

Melons. But I said you wouldn't put them in your vegetable book if they were not vegetables. Of course, she knew I was right then; but she is a girl, and I am two years the oldest.

ANNIE read all about flower beds, and flowers, and I made a good many drawings of curious-shaped beds on paper, and father said ANNIE should have a bed on the back of the lawn near the shrubbery; for he knew with a little help she would have a nice one, and so she did, and I will write you about it some time.

I was to have a place for Melons, but father wanted it pretty well out of sight, he said, because he was afraid I would grow more weeds than Melons. People always think girls can do the nicest. When the frost was gone, and the piece of ground was dug up by the man we have, who takes care of the horse and cow, I planted the seed, because I was bound to have the first and biggest Melons, and I would show that I could have a garden that needn't be hid behind the barn.

So I told father I had got my bed planted, and he said, "Hold on was the best horse." Snow came, and wet, rainy weather, and I guess the Melons were afraid to come up for fear they would take cold. Some people said they must have gone down instead of up—grown the wrong way. I planted some more, and they grew. They were Musk Melons and Water Melons. But how the bugs did go for them. It took me all my time to kill them. Then the weeds grew, and I got tired of the job, and wished I had never planted them; but I didn't like to give up, because father would laugh at me, and talk about perseverance and the "hold on" horse. I didn't kill all the bugs, nor all the weeds, and the Melons looked pretty bad, and I was glad they were where no one could see them very well.

One Saturday afternoon I came home from play—had a splendid time at base ball; our nine beat 14 to 10, and I felt good. As I passed my Melon bed, I saw it was all clean, and the plants looked nice. I felt pretty bad then, and I went to ANNIE to find out who had done it, when she had to own up that she had heard father say, as he looked at the Melon bed, "Just as I expected. JAMES starts well, but has no perseverance, and I fear will amount to nothing." And so she had quietly cared for my bed while I was at play, and said she would do it every Saturday, if I would not tell who did it. Do you think I let her do it? I hope not—not a bit of it. Let a girl take care of my Melon bed! I just told her she was a precious sister—but I would do my own work; and I did, and it wasn't half so hard as I had expected. It was just fun to look at it after it was done,

and I did have some nice Nutmegs and red-fleshed Water Melons; and Sis says she heard father say that JIM seemed to be getting the better of his weakness. Some time I will tell you about ANNIE'S flower bed. It was grand.
—JAMES.

THE GREAT CALIFORNIA SPIDER.

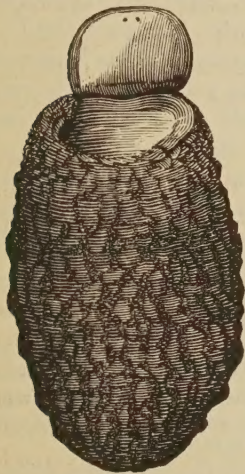
MR. EDITOR:—I thought that perhaps your young readers, who have doubtless read something of the curious habits of Spiders, Ants, &c., and would like to know something about a great spider that lives in California. I was



TARANTULA.

going once to visit the Great Trees, which you described in a recent number of the MAGAZINE, and had reached an old mining town, called Murphy's Camp, where we stopped over night. Here I saw some curious egg-shaped vessels made of reddish clay, and lined with a soft, drab-colored, velvety lining. They were about three inches in length and perhaps two in diameter, on the outside; the opening about an inch in diameter.

The most curious part of the work, however, was a trap door at the top, on a nice hinge, so



TARANTULA CAVE.

that it would open and shut readily. These, I learned, were the homes of a large spider called the Tarantula, and I afterwards saw some of them. They are large, black, hairy, ugly-looking things, with legs extended, measuring, I should think, two inches across. They are very poisonous, and death has resulted from their bite in many cases, though not always. They have an enemy in a large Wasp, that destroys them at every opportunity, and these clay houses, which are sunk in the ground, are places of refuge. I brought home one of their houses, but did not wish any of the spiders, thinking they would prove not very safe or agreeable company.—AN OLD BOY.

BOTANY FOR LITTLE FOLKS.

Among the hardy water-plants found in many parts of the country is one that is particularly beautiful, and on this account, since it may be easily found about ponds and marshes and slow streams, it is now brought to notice in connection with other endogenous plants. We refer to the Pontederia, or Pickerel Weed.

Our illustration shows the general appearance of leaf and flower-spike. The parallel venation common to the leaves in this division is apparent. The leaves are about a foot in length, with a heart-shaped base, and are supported on stems from one to two feet long. The flower-stem, surrounded at its base by the sheath of the petiole, stands up prominently, and bears a panicle of beautiful blue flowers. One of the flowers, shown at figure 2, gives a correct idea of its appearance as viewed from the front. The base of the flower is tubular, but divides, as is shown, into six parts, the upper one of which is much broader than either of the others. The diagram, figure 3, indicates the relative position of the parts of the flower, showing the perianth, when in the bud, to be arranged in two series of three each. The six stamens are inserted on the tube, three of them near its base and three near its summit, opposite and corresponding to the six divisions of the perianth. The ovary is three-celled. Thus it will be seen that the arrangement of the parts in threes, that we have already noticed as common to endogenous plants, is identified in the Pickerel Weed as clearly as in the Lily.

There are many beautiful species of Pontederia growing in different parts of the world, principally the East Indies, Africa, and the warmer parts of this continent. In some of the large and rare collections of plants in Europe, many of these kinds of Pontederia are cultivated. The only other species found in the Northern States is *P. lancifolia*, which has flowers similar to the one noticed, but its leaves are narrow, and described as lance-oblong, or even lance-linear. The Pontederia and two or three allied genera constitute the natural order, Pontederiacæ. Pontederia was an ancient botanist, whose name is now perpetuated by being attached to this family of plants.

We may notice in this flower the unequal division of the perianth, the upper one being much more conspicuous than the others. The same arrangement is seen in the Gladiolus, and numerous other plants of this division, corresponding somewhat to the peculiar forms of Labiate plants and those of the order of Scrophulariacæ, and others among the Exogens. Without speculating upon the possibility of any advantages these unusual forms may afford the

plants by making them more attractive to insects, and thus securing through their agency more perfect fertilization, which to some extent is undoubtedly the case, we only note the fact.

Although the main purpose in this series of articles has been to indicate differences of organization in the plants of the various families and divisions, we may now very profitably notice some similarities or likenesses. To continue this train of thought, then, besides the resemblance of the irregular flowers just mentioned, we find among the endogens flowers with such regular corollas as the Trillium and Lily with petals and sepals wholly free and distinct, corresponding in this respect to the flowers of the Ranunculus, Clematis, &c.

Again, the bells of the Hyacinth remind us instantly of the Campanulas. Thus we see the forms first found among flowers constructed of five parts repeated with little variation in those made up of three parts. We have seen how distinctly marked are these two great divisions of outside and inside growers. Are not their similarities as great? We are able by a glance at the leaf of a plant to determine almost unmistakably whether it belongs to the one or the other of the two great divisions of flowering plants, so much do they differ. On the other hand, as we have faintly traced in the flowers,



Fig. 1. *Pontederia cordata*.

so we may in these diverse kinds of foliage find a likeness that is remarkable, and that, too, in the venation; to make this apparent some good illustrations would be necessary, which at present are not prepared, but may be given at some

other time. We have heretofore taken occasion to point out by what little changes some of the greatest differences of form are produced, and the more attention we give the subject, the



Fig. 3. Diagram of *Pontederia*.



Fig. 2. *Pontederia*, Single Flower.

plainer this fact becomes, so that with little difficulty we are able to trace the many-formed structures in the vegetable kingdom to a common source; ultimately to a single cell, and inferentially, to one thought of Him by whom all things consist.

MY FAVORITE FLOWERS.

MR. VICK:—I want to tell you about my *Tigridia Pavonias*. The flowers are very large all summer, but one day there was one flower with four petals, and the next day another plant had one with four. The petals, stamens and pistils were all in fours, and so regular that one who did not know would have called them perfect. Perhaps you have seen such, but it was new to me.

You do not recommend *Ricinus sanguineus* high enough. You say it grows five five feet, but mine have always been more, and some have been seven feet. The seed does not ripen. Perhaps the soil is too rich.

My flowers are nice, especially *Dianthus*, *Phlox Drummondii*, *Zinnia*, Marigold and Cypress vine; yes, and Coxcumb. Some feathered ones are beauties, and the yellow ones are very large. It rains or I would go and measure one or two and tell you how large they are.

The colored plates in the MAGAZINE are beautiful. The Autumn Berries was a beauty, but we have several very nice which you do not give.—CLARA F.

A LITTLE GRASS.

Will you please tell me what this Grass is? I picked it on the side of the street, and never saw it before. We have been talking about it, and our teacher said send it to Mr. VICK—GEO. W. W.



The little Grass is *Briza minor*, or Little Briza. It is a very pretty Grass, and is grown in gardens as an ornamental Grass, and much used in making up winter ornaments. The seed must have been dropped accidentally on the side of the road.



PAINTED FOR VICKS MONTHLY
AURATUM LILY